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IN THIS ISSUE - IN HIERDIE UITGAWE

Editorial: Van die Redaksie

Ethnology and Medicine Volkekunde en Geneeskunde

Original Articles: Oorspronklike Artikels

Intestinale Obstruksie Veroorsaak deur Galstene

Fluorescence Microscopy as a Routine Method for the Detection of M. Tuberculosis and M. Leprae

The Significance of Low Serum Calcium Values in the South African Bantu

Some Observations on the Eosinophil Count of the Tuberculous Bantu

Association News: Verenigingsnuus
The Benevolent Fund: Die Liefdadigheidsfonds
Medical Conferences in Great Britain
Correspondence: Briewerubriek

Support Your Own Agency Department Ondersteun u Eie Agentskap-Afdeling Professional Appointments Professionale Betrekkings

Passing Events: In die Verbygaan Proposed College of Physicans and Surgeons Reviews of Books: Boekresensies

> (P. xxiv) (Bl. xxiv) (Pp. xxiv-xxvi) (Bls. xxiv-xxvi)

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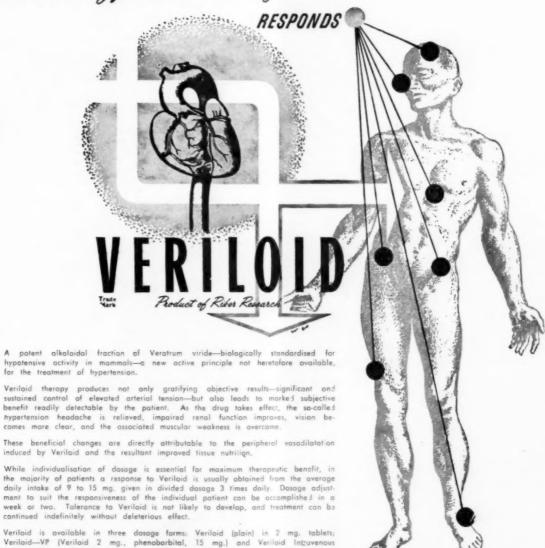
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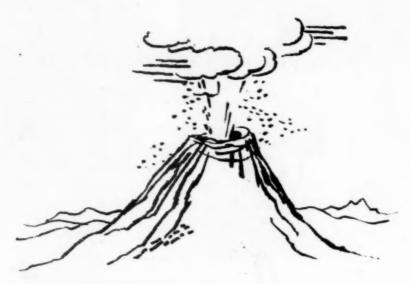


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1. Valentine, F. G. O.: LANCET 8:851 (AUG. 23) 1952.

2. Roins, F.: NEW YORK STATE J. MED. 58: 1081 (APR. 15: 1962.

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Vol. 28 No. 3

Kaapstad, 16 Januarie 1954 Weekliks 2/6

CONTENTS - INHOUD

Intestinale Obstruksie Veroorsaak deur	Galste	ene.				
A. E. Dreosti, F.R.C.S. (Eng.)				0.00	000	41
Abstracts: Uittreksels	0.00		***		42,	44
Editorial: Ethnology and Medicine	0.00			0.00	***	43
Van die Redaksie: Volkekunde en Ge	neeski	inde		***	0.0.0	43
Fluorescence Microscopy as a Routine	Meti	nod fo	r the	Date	ction	
of M. Tuberculosis and M. Lep	orae.	T. vo	n Hae	bler	and	
J. F. Murray		000	000		***	45
The Significance of Low Serum Calcium	Value	es in t	he Sou	th Af	rican	
Bantu. A. R. P. Walker, M.Sc., Pf	.D., L	Illa 8.	Arvids	son,	B.Sc.	
and W. M. Politzer, M.D						48

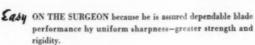
Some Observations on the Eosinophil Count of the Tubercu	lous Bo	ontu.	
C. H. L. Howells, B.Sc., M.D	* > 1		5
Association News : Verenigingsnuus. Cape Western Branch			5
The Benevolent Fund : Die Liefdadigheidsfonds			5
Passing Events: In die Verbygaan	4.0		5
Proposed College of Physicians and Surgeons	***		5
Medical Conferences in Great Britain			5
Doctors will meet in Killarney		***	5
Review of Books : Boekresensies			5
Correspondence : Briewerubriek		***	5

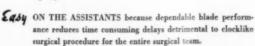
Round the Clock

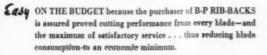


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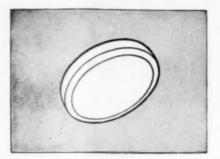


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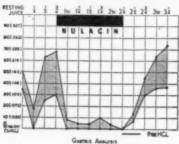


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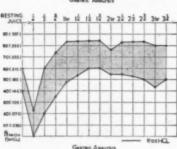
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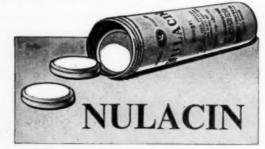
British Medical Journal, 180—182, 26th July, 1952. Medical Press, 195—199, 27th February, 1952. occomplishes this with considerably less antacid than is required by any other method of oral administration. The results are comparable with those of intragastric milk-alkali drip therapy.

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INTESTINALE OBSTRUKSIE VEROORSAAK DEUR GALSTENE

A. E. DREOSTI, F.R.C.S., ENG.

Johannesburg

Tien jaar gelede¹ moes ek twee gevalle behandel van verstopping van die dunderm wat deur galstene veroorsaak was. Onlangs (19 Mei 1953) het ek weer so 'n geval teëgekom.

Sulke gevalle kom maar selde voor, maar as hulle wel hul verskyning maak, wek dit intensiewe belangstelling op, veral met betrekking tot die patologie en die meganisme van die kondisie, want ons weet dat gewone galstene te klein is om intestinale obstruksie te veroorsaak.

Hoe gebeur dit dan dat 'n galsteen so groot word dat dit die dunderm verstop en op hoe 'n manier dring sulke groot galstene die dunderm binne? Dat dit deur die ductus choledochus geskied is onwaarskynlik, want hierdie kanaal is te nou. Derhalwe kan ons aanneem dat daar 'n fistel tussen die galblaas en die dunderm gevorm word. Maar hoe ontstaan so 'n fistel?

'n Moontlike komplikasie van galstene is dat 'n steen in die nek van die galblaas vassteek. In so 'n geval kan een van drie dinge gebeur:

 As die galblaas min of meer leeg is, sal dit geleidelik met slym opvul en 'n mukoseel vorm.

(2) Is die galblaas reeds vol gal en is daar tegelykertyd kieme, etter ens., aanwesig, sal gangreen spoedig intree met sekondêre gevolg dat die galblaas bars.

(3) Is die galblaas egter nie te vol nie en die steen steek in die nek vas, dan ontstaan daar gewoonlik 'n empieem van die galblaas. In 'n poging om die ontsteking te lokaliseer pak die vetvlies (omentum) en die derm om die galblaas saam. Bedaar die inflammasie egter nie, dan bars die galblaas.

Waar die galblaas gewoonlik die eerste padgee is op die fundus deurdat tensie-gangreen in hierdie gedeelte ontstaan waar die bloedtoevoer die swakste is. Hier gaan die weefsels die eerste dood en bars. Daarna vorm 'n abses in die omgewing van die galblaas wat dan verder versprei en of deur die buik na buite bars of na binne in die maag, die dikderm of die dunderm. Dit is alleen maar wanneer die abses binne in die dunderm bars dat omstandighede gunstig is vir intestinale obstruksie.

As die abses in die kleinderm bars ontledig die galblaas hom deur die fistil sodat etter, gal en galstene die dunderm binnedring. Hierdie galstene is egter te klein om verstopping van die derm te veroorsaak.

Wat vervolgens gebeur is dit: Met bedaring van tensie in die galblaas, werk die galsteen wat in die nek vassit los en val in die galblaas terug.

Die natuurlike neiging van die steen is egter om te ontsnap. Is hy klein genoeg, baan hy sy weg deur die fistel en die hele episode is verby. Maar as hy te groot is, kan die steen nie daardeur nie. Ons moet in gedagte hou dat die kollabering van die galblaas nadat dit gebars het, die opening in die fistel ook kleiner laat. Maar die poging van die steen om 'n deurgang te vind, verhoed dat die fistel toe gaan.

Met verloop van tyd vergroot die galsteen na gelang galsoute, duodenale kontente ens., daaraan vaspak totdat hy uiteindelik te groot vir die galblaas word.

Deurdat hierdie vergrootte steen nou teen die mond van die fistel begin te skuur, ontstaan daar ulserasie wat die opening geleidelik vergroot sodat die steen daardeur glip en in die duodenum beland.

Die steen wat nou groot genoeg is om verstopping te weeg te bring, gaan langs die duodenum af waar dit irritasie en spasme veroorsaak wat aanleiding gee tot obstruksie-proksimaal.

Sodra die derm moeg word en spasme verslap, gaan die steen verder totdat dit die derm weer eens irriteer en die spasme en obstruksie herhaal word. Uiteindelik (na 4 tot 6 dae) steek die steen heeltemal vas, gewoonlik in die terminale ileum. Boonop pak nog meer dermkontente om die steen aan sodat dit nog verder vergroot.

Dit is waarskynlik dat:

(1) 'n Pasiënt by wie hierdie kondisie aangetref word reeds op gevorderde leeftyd sal wees.

(2) Daar 'n geruime tydperk verloop het tussen die laaste aanval van galsteenkoliek en die obstruksie.

(3) Die dermkoliek maklik verwar kan word met galsteenkoliek by 'n pasiënt wat reeds jare lank aan galsteenkoliek gely het.

(4) Die obstruksie aanvanklik nie aanhoudend is nie, maar by tussenposes onderbreek word en dat algehele verstopping eers na 4 tot 6 dae plaasvind.

(5) Ons kan dus begryp waarom diagnose in die reël baie laat gemaak word en die sterftesyfer derhalwe hoog is: ±60%

Kliniese Gevalle. Twee vorige gevalle is reeds in dié Tydskrif¹ (1944) beskryf. Hiermee wil ek nog 'n tipiese geval rapporteer.

GEVAL

In Mei-maand is ek deur dr. Phiebig gevra om mev. B,

'n 64-jarige huisvrou te sien.

Vir 2 dae lank het die pasiënt krampe in die buik gehad en opgebring. Die toestand het al hoe erger geword. In die begin was die krampe nie aanhoudend nie en die maag het ook die vorige dag gewerk. Die vomitus was bruin en aanstootlik. Die pasiënt se maag het 36 uur van te vore gewerk en daarna nie weer nie; sy het van toe af ook geen winde gepasseer nie.

Vroeëre geskiedenis. In die verlede het sy enkele aanvalle van galstene gehad. X-straalfotos is in 1942 geneem wat 'n groot galsteen in die galblaas aangewys het. Aangesien die pasiënt aan kroniese bronchitis gely het, kon daar nie geopereer word nie. Sy het ook geen

vorige buikoperasies ondergaan nie.

By ondersoek het geblyk dat die koors normaal en die polsslag 126 was. Gedurende die ondersoek het sy aanvalle van kramppyne gehad en tipiese fekale vomitus opgebring. Die buik was heelwat opgesit in die middel. Harde dermgeluide kon maklik gehoor word. Daar was geen breuke of abnormaliteite P.V. en P.R. te bespeur nie

Die diagnose was obstruksie hoog in die kleinderm en

die pasiënt is na 'n verpleeginrigting gestuur.

Sowel intraveneuse drup van soutoplossing as Wangensteensuiging is begin. 'n X-straalfoto van die buik het 'n verstopping van die dunderm aangedui-daar was geen galsteen in die dunderm of in die galblaas area te bespeur nie. Op 'n gewone plaat wat voorheen geneem was, het die galsteen duidelik opgewys. Die waarskynlikheid dat obstruksie van die dunderm deur 'n galsteen veroorsaak mag wees was dadelik opvallend en het groot diagnostieke belangstelling gaande gemaak.

Na 3 ure van intraveneuse drup en Wangensteen-

suiging was die pasiënt vir operasie gereed.

Operasie (Narkotiseur: Dr. Feldman. Assistente: Drs. Phiebig en Gordon Smith.) Die buik is deur middel van 'n kort transrektale snit regoor die nael oopgemaak.

Dun bloederige sug het uitgelek en die dunderm was geweldig opgesit. Die oorsaak van die obstruksie was 'n groot galsteen 11 duim lank en 1 duim dik wat in die onderste gedeelte van die jejunum vasgesit het. Die derm rondom die galsteen was dun en op plekke geel en so styf oor die steen gespan dat die steen slegs met groot moeite in die geswelde proksimale derm teruggemelk kan word. Dit was onmoontlik om die steen verder af by die plek van obstruksie verby te melk. Die gedeelte van die derm met die steen daarin is toe geïsoleer en met klampe afgeknyp. Daarna is die steen deur middel van 'n lang snit in die derm verwyder. Die snit is dan weer dwars toegewerk.

Aangesien die dunderm bokant die obstruksie so geweldig geswel was en die dermweefsels in die obstruksie-area so ongesond was, is 'n proksimaalenterostomie gedoen-d.w.s. 'n kateter, die dikte van 'n pinkie is by 'n punt ongeveer 2 voet bokant die obstruksie-area in die derm ingelaat, daaraan vasgeheg en die derm rondom die kateter met katderm toegewerk. Daarna is die kateter deur die omentum gebring en deur middel van 'n steekwond in die regter sy, ver weg van die laparotomie-wond af na buite gelei.

Na-operasie behandeling: Crysticillin 300,000 eenhede en streptomycin | gram is tweekeer per dag ingespuit.

Na verloop van 48 uur is die Wangensteensuiging gestaak—d.w.s. sodra die enterostoom goed begin werk het en die maag-kontente skoner geword het.

Vloeistof per mond is nou toegelaat.

Om seker te maak dat die pasiënt nie te veel vloeistof met die enterostomie verloor nie, is 'n dag langer met die

intraveneuse drup volgehou.

Drie dae na die operasie het die pasiënt se maag vanself gewerk en sodra waargeneem is dat die maag oor die volgende paar dae goed gewerk het, d.w.s. dat daar geen obstruksie was nie, is die enterostomie-buis op die 8ste dag verwyder. Op die 12de dag het die pasiënt opgestaan en op die 16de dag is sy huis toe.

OPSOMMING

(1) Intestinale obstruksie van die dunderm deur galstene kom selde voor. Gedurende 13 jaar het ek slegs gevalle teëgekom.

(2) Diagnose is moeilik omdat die toestand maklik met galsteen-koliek verwar kan word veral by 'n pasiënt wat tevore reeds aanvalle van koliek gehad het.

(3) In die begin vind obstruksie by tussenposes plaas en dit bemoeilik die diagnose nog verder.

(4) Gevolglik is die sterftesyfer hoog: ±60%.
(5) Alhoewel die kondisie hierbo beskryf seldsaam is, kom verstopping van die dunderm op gevorderde leeftyd ook nie dikwels voor nie behalwe in gevalle van breuke en vergroeisels van vorige operasies.

Dundermverstopping dus, in die ,skoon buik' van 'n ou mens moet ons altyd aan die moontlikheid van galsteen-obstruksie laat dink.

VERWYSING

1. S. Afr. Tydskr. Geneesk. (1944): Dreosti, A. E., 18, 195.

ABSTRACTS: UITTREKSELS

Fisher and Biggs, Brit. Med. J., 1, 14 February 1953, p. 402: Haemoglobin level in pregnancy.

It appears from this study that the so-called physiologic anaemia

of pregnancy is a misnomer and that in cases where women are given iron regularly in pregnancy there is a rise and not a fall in the haemoglobin level. A low level at term results from iron deficiency and is a preventable condition. The number of patients so far covered in this study is 65. Every patient has been given an iron

preparation orally and at the end of pregnancy 54 out of 65 patients had haemoglobin levels above 90%. Haemoglobin studies were made at the first attendance of the woman, at about 28 weeks, at about 38 weeks, and also about 6 weeks after delivery. It seems, then, that 'anaemia of pregnancy' is not a necessary feature of pregnancy itself but may be prevented and women may thus avoid this debilitating condition.



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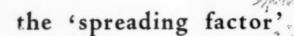


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EDITORIAL

VAN DIE REDAKSIE

ETHNOLOGY AND MEDICINE

VOLKEKUNDE EN GENEESKUNDE

When western medicine, preventive or curative, is applied to primitive peoples, or to people of alien culture, conflicts arise between the new ideas and the ancient beliefs and cultural concepts, and unless the new ideas are modified or acclimatized to fit the old environment they are unlikely to take root.

Perhaps the leading example of the successful grafting of western culture on an alien civilization is to be found in Japan. When the Japanese adopted the science, and the industrial, commercial and other methods, of the west they did so of their own volition, and they resolved the conflicts between the old and the new for themselves. They were inspired with an understanding desire to secure the benefits which they believed they could get by following the example of the west. It is when the attempt is made to press upon an unwilling, uncomprehending and, it may be, resentful people, ways and methods which are in conflict with their established habits and beliefs that opposition is met which makes success unlikely.

Dr. F. Daubenton, Director of the WHO Regional Office for Africa, in his annual report for 1953, discussed the culture and customs of the African peoples which would hamper the plans of health administrations and in the long run bring them to ruin, unless due account were taken of those factors, and unless the help and co-operation of enlightened Africans were obtained.

Dr. P. Dorolle ² has written on the bearing of ethnology on health problems and the harm done by well-meaning but maladroit approaches to what he calls non-mechanized populations. He gives many examples of beliefs and customs that may be affronted. For instance, maternity hospitals may be banned because customary ritual ceremonies on mother or child are overlooked (Viet Nam); or because the infants are not provided with amulets against evil spirits (India); or because the practice of putting the newborn infant in contact with the naked earth is neglected (Africa); or because food customs or taboos are ignored.

These last are an important factor in nutritional problems in many countries. In Viet Nam cow's milk is regarded with repugnance; many African peoples refuse to eat milk or eggs; certain South African Bantu tribes, though living on the banks of rivers, will not eat fish. The ban on the eating of beef in certain religions and pork in others is well known.

Smallpox is considered an unavoidable disease in Viet Nam and China and, in the past, no name was given to a child until he had come through an attack of smallpox. In India smallpox and other eruptive fevers are attributed to the goddess Mata, who is held in great awe.

Die toepassing van westerse geneeskunde, voorbehoedend of genesend, op 'n primitiewe volk of 'n volk met 'n vreemde kultuur, ontketen botsings tussen die nuwe begrippe en die ou gelowe en kulturele opvattings en tensy die nuwe begrippe gewysig word om by die ou omgewing in te pas, is dit onwaarskynlik dat hul sal wortel skiet.

Japan bied miskien die beste voorbeeld aan van die suksesvolle oorplanting van 'n westerse kultuur op 'n uitlandse bodem. Toe Japan die wetenskap, die nywerheids-, besigheids- en ander metodes van die westerse lande aanvaar het, het hul dit uit eie keuse gedoen en het hul vir hulself die botsings tussen die oue en die nuwe opgelos. Hulle was aangevuur deur 'n intelligente begeerte om van die voordele te geniet wat hul geglo het hul kon verkry deur in die spore van die westerse nasies te volg. Dit is wanneer pogings aangewend word om gebruike en metodes op 'n onwillige, onbegrypende en moontlik weerbarstige volk af te dwing wat teenstrydig met hul gevestigde gewoontes en opvattings is dat weerstand gebied word wat die kanse op sukses vervdel.

Dr. F. Daubenton, Direkteur van W.G.O. se Streekkantoor vir Afrika, het in sy jaarverslag vir 1953 dié kultuur en gewoontes van die volke van Afrika bespreek wat gesondheidsplanne in die war kon stuur en uiteindelik verydel tensy dié faktore in ag geneem word en tensy die hulp en samewerking van ingeligte inboorlinge verkry word.

Dr. P. Dorolle² het geskrywe oor die invloed wat volkekunde op gesondheidsprobleme uitoefen en die kwaad wat gedoen word deur ongemeganiseerde volkere (soos hy hul noem) op 'n goedbedoelde maar onbeholpe manier te benader. Hy haal baie voorbeelde aan van gelowe en gebruike wat dit beledigend sou wees om te veronagsaam. Kraaminrigtings kan byvoorbeeld in die ban gedoen word omdat die gebruiklike voorgeskrewe seremonies vir moeder en kind nie uitgevoer word nie (Viet Nam) of omdat suigelinge nie met amulette voorsien word nie om hul teen bose geeste te beskerm (Indië); of omdat die gebruik om 'n pasgebore babetjie met moeder aarde in aanraking te bring veronagsaam is (Afrika); of omdat voedingsgewoontes of taboes oor die hoof gesien word.

Laasgenoemde is 'n belangrike faktor in die voedingsprobleme van baie lande. Die Vietnamees verafsku koeimelk; baie van die inboorlingstamme in Afrika verseg om melk of eiers te nuttig. Sekere Bantoestamme in Suid-Afrika, alhoewel hul rivieroewers bewoon, eet nie vis nie. Die verbod van sekere godsOther diseases also are attributed to supernatural causes, and to prevent or treat a disease is an offence against the god or spirit that causes it.

In all civilizations mental and nervous diseases used to be attributed to possession by a spirit. Throughout Africa, in Arab countries, and in most of Asia, this belief is still held, and 'the magical or mystical conception of madness entails treatment of a religious or thaumaturgical character which consists of incantations and exorcisms practised generally by specialists and often accompanied by violence-beatings, icy baths, compulsory fasting '.2

These are but a few of the beliefs and customs which in different parts of the world may militate against the successful introduction of western medicine and hygiene. Every doctor working among Africans, as among many other peoples, learns to take into account those of their peculiarities which he understands. It is, however, becoming increasingly realized 'that in the complex field of myths, rituals, taboos, witchcraft and sorcery, in the realm of the fear and anxieties inspired by certain concepts of the world around us, only the ethnologist can move with confidence and interpret the ideas and practices of a population and its beliefs and customs '2

An ethnologist has in fact been attached to the WHO Regional Office for Africa, and similar appointments have been made in connexion with health programmes in other parts of the world.

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dienste teen beesvleis en ander teen varkvleis is alom-

In Sjina en Viet Nam word pokke as 'n onvermydelike siekte beskou en in die verlede het geen kind 'n naam gekry nie totdat hy of sy 'n aanval van pokke oorleef het nie. Pokke en ander koorsuitslae word aan die godin Mata toegeskryf en vir haar word die grootste ontsag gekoester. Ook ander siektes word aan bonatuurlike oorsake toegeskryf en om so 'n siekte te keer of te behandel word beskou as 'n sonde teenoor die god of gees wat vir die siekte verantwoordelik is.

In die verlede is dit deur alle beskawings aanvaar dat 'n sielsieke of 'n kranksinnige deur 'n bose gees besete is. Dit is vandag nog die opvatting in Afrika, in Arabiese lande en in die grootste gedeelte van Asië. ,Hierdie mistiese opvatting oor kranksinnigheid genoodsaak behandeling van 'n godsdienstige of wonderdoenende aard bestaande uit geestesbeswerings en duiwelbannings wat gewoonlik deur spesialiste uitgevoer word en wat dikwels met gewelddadigheid gepaard gaan-loesings,

Hierdie is slegs 'n paar van die gelowe en gebruike in verskillende dele van die wêreld wat die geslaagde invoering van westerse geneeskunde en gesondheidsleer kan teëwerk. Elke geneesheer wat onder naturelle werk leer om hul besondere eienskappe waarvan hy bewus is in ag te neem. Die mening neem egter steeds toe, dat op die ingewikkelde gebied van fabels, taboes, toordery en in die skemerwêreld van vrees en kommer wat deur sekere opvattings geskep word, net die volkekundige tuis hoort en die idees, gewoontes, gelowe en gebruike van 'n volk kan vertolk . . . '2

'n Etnoloog is nou aan die W.G.O. se Streekkantoor vir Afrika verbonde en in ander dele van die wêreld is soortgelyke aanstellings in verband met gesondheidsprogramme gemaak.

VERWYSINGS

- An Rep. Director Reg. Off. Africa WHO, 1953. Uittrek. (1953);
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ABSTRACTS: UITTREKSELS

Smith and Bailey J. Amer. Med. A. 152, 27 June 1953, pp. 792-794; Effect of Streptomycin in Synovial Tuberculosis of the knee. This is a report of streptomycin treatment of 5 cases of synovial tuberculosis of the knee treated with streptomycin and followed up for periods of 3 to 6 years. All cases were proved by cultures for tubercle bacilli and by animal inoculation of aspirated joint fluid. The dose of streptomycin ranged between 1g. and 2 g. daily, given parenterally for a total period of 90 to 120 days.

All patients were immobilized in plaster for periods of several months to a year, in addition to receiving streptomycin, and some also received PAS. The authors conclude that streptomycin exerts a clearly beneficial effect on the course of synovial tuberculosis of the knee. No patient in the series, on X-ray study, showed any sign of osseocartilaginous erosion after institution of therapy.

In one single case arthrotomy was carried out one year after streptomycin had been administered. There was no gross pathological, bacteriological or histological evidence of tuberculosis in the synovium, cartilage or subchondral bone. There is thus a suggestion that streptomycin may be able to eliminate tuberculous infection within the synovium. Considerable follow-up and supplementary work is essential, however, for determining the true value of streptomycin in synovial tuberculosis.

Meilman, New Eng. J. Med., 248, 21 and 28 May 1953, pp. 894-902 and 936-943: The medical management of arterial hypertension. Among the veratrum alkaloids a biologically standardized extract containing a mixture of esters from Veratrum viride and one pure ester (protoveratrine) have been studied rather extensively and it appears that these two types of veratrum products have brought about a significant reduction in blood pressure with only occasional toxic side effects in about a third of the patients treated when proper care is given to the dosage regimen employed. Rauwolfia serpentina seems to be a drug of moderate hypotensive activity, of particular value in milder cases of hypertension and especially so in young persons with labile blood pressures.

Tolerance to the drug does not seem to develop, even when it is given continuously. Hexamethonium is a very potent agent, but in its very potency lies danger and it must be administered with great care. More patients can be controlled with parenteral than with oral forms of this drug. It is interesting that even a drug which disturbs homeostasis (a tendency to uniformity or stability in the normal body states of the organism), like hexamethonium, yields marked improvement in many hypertensive manifestations because of the hypotensive action. Rauwolfia serpentina and veratrum esters may be used in ambulatory treatment; hexamethonium treatment should alwys be initiated in a hospital.

FLUORESCENCE MICROSCOPY AS A ROUTINE METHOD FOR THE DETECTION OF M. TUBERCULOSIS AND M. LEPRAE

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Since the introduction of fluorescence microscopy (F.M.) into bacteriology as a diagnostic procedure for the demonstration of *M. tuberculosis* and *M. leprae* by Hagemann ⁵ various investigators have reported their experience with this method. Numerous modifications and improvements of Hagemann's original technique have been published, the most useful perhaps being the suggestion of Norman and Jelks ¹⁶ to mark suspicious areas on a slide containing fluorescent bacilli by means of a diamond marker and to re-stain the same film by the Ziehl-Neelsen method (Z.N.), in order to confirm the presence of acid-fast bacilli, and Hughes' improved stain, ⁶ which made it possible to use binocular microscopes for the examination.

For examination for tubercle bacilli most reports were favourable (Tanner, 12, 13 Lind and Shaughnessy, 12 Lempert, 13 Norman and Jelks, 10 Clegg and Foster-Carter, 12 Wilson 14 and others). The main advantages mentioned were: increased percentage of positives, speed of examination and, in some instances, lessening of eye-strain. Ritterhof and Bowman 11 regarded the method as oversensitive and not sufficiently specific, thus confirming Küster's statements. 7 Andrew et al. 1 noted that the method was of little advantage when series of examinations containing a large percentage of positives were dealt with.

Few publications are available assessing the value of F.M. for the examination for *M. leprae*. The largest series is that of Dubois and Swerts,³ whose results were not sufficiently favourable to induce them to introduce the method as a routine procedure. Gohar ⁴ also found that, in spite of the slightly higher percentage of positives, the method had little advantage over the Z.N. technique.

SCOPE OF INVESTIGATION

Our main interest lay in exploring the possibility of using F.M. as a routine method for the microscopic examination of specimens for tubercle bacilli, either in conjunction with, or entirely replacing, the usual Z.N. technique. The results described in the literature seemed encouraging, but none of the conditions mentioned were strictly comparable with those obtaining at this Institute. At the time this examination was begun approximately 200 specimens were examined daily for M. tuberculosis. About 90% of these were sputa, and only these were included in this comparison; other specimens, such as pleural and ascitic fluids, specimens of pus, etc. were stained by Z.N. as before. Slides for examination for M. leprae were very soon included in the investigation, and our results with these will be summarized separately.

No attempt was made to correlate our findings with the clinical findings in individual cases, or to confirm positive results by cultural or biological tests, our only aim being to establish whether the introduction of F.M. could reduce the time needed for the examination of this large number of specimens without loss of accuracy in results, perhaps even with some slight gain.

TECHNIQUE AND EQUIPMENT

Smears were made from the sediment of sputa digested with papain and later with Eusol. This was still later replaced by a digesting fluid of the following composition: calcium hypochlorite 160 g. and sodium carbonate 320 g., made up to 4 litres with distilled water, left to sediment and decanted. For use, the supernatant fluid was diluted 1: 10 with distilled water.

The smears were dried and fixed on a water bath at a temperature of approximately 85°C for 20-30 minutes.

The staining technique used was that recommended by Hughes.⁶ The staining times had to be slightly modified occasionally, as different batches of fluorochromes proved to vary in their staining capacity. For staining of leprosy slides the following times were generally found most satisfactory: Stain with the heated mixture of auramine, rhodamine and acridine yellow for 8 minutes, decolorize for 1-2 minutes only. Longer treatment with the acid-alcohol mixture led to over-decolorization.

For examination of the smears, a Cooke, Troughton and Simms 250W high-pressure mercury-vapour lamp was used, in conjunction with a lamp-condenser, water-trough and deep-blue filter, which eliminated all but the extreme blue, violet and ultraviolet rays. The binocular microscope was fitted with yellow filters, placed on the field diaphragms of the eyepieces. With this light-source of high intensity, quartz optics are unnecessary.

The objectives employed were: a 16-mm. 10x objective, N.A. 0.28, and a 4-mm. 40x metallurgical dry objective, N.A. 0.85. The former objective was used for a quick survey of the film and the latter for the morphological identification of the bacilli observed. It allowed the scrutiny of a relatively large field, evenly illuminated. Later on a third, 8-mm. 20x N.A. 0.5 objective was added, which was found more convenient for the survey of the film and detection of the organisms. The 10x objective was then used only for focusing.

With all these objectives, oculars magnifying 8x were used, which, in conjunction with the binocular attachment of the microscope, gave a magnification of 12x.

Z.N.-stained smears were examined with a Cooke fluorite oil-immersion objective N.A. 0.95 3.75 mm. 45x, using 10x Zeiss eyepieces in the binocular.

The fields examined were, under these circumstances, as illustrated in Table I.

	1	2	3	4 (oil)
Magnification	10x	20x	40x	45x
Field diameter in mm	1.11	0.59	0.27	0.205
Area in sq. mm.	0.967	0.264	0.057	0.033
Relative area	29.3	8.0	1.7	1.0

INVESTIGATIONS AND TRAINING OF EXAMINERS

To begin with, a certain number of smears were examined daily by F.M., the results carefully recorded, and the slides then stained by Z.N. and handed to one of the staff normally doing the routine examination. This second examiner was not aware that the slides had already been Comparison showed that, after some experience had been gained, the results obtained by F.M. were at least as accurate as those obtained by the Z.N. technique. In fact, slightly more positive results were obtained by the former method. In addition, the time consumed in examining the smears was considerably less. The method proved very tiring to begin with, apparently due to difficulties in accommodating the eyes to the unfamiliar focussing and colour scheme, but this disappeared very soon with practice. These preliminary examinations seemed promising enough to pursue the investigation further, and for this purpose more workers were trained.

With increasing experience, it was deemed safe to discard slides found negative by F.M. without re-staining them by Z.N., and this stage was generally reached after examination of approximately 300 slides. To save time, therefore, the first 300 slides of each new recruit were re-examined by one of us by F.M., the negatives discarded, and the positives and suspicious ones re-stained by Z.N. and re-examined by the recruit. That this procedure was justifiable was shown by the results of periodic re-examinations of discarded negative slides, as will be described later. In this manner an adequate team was trained to deal with a fairly large number of examinations daily.

RESULTS

M. tuberculosis

Results were recorded over a period of approximately

Of a total of 60,747 sputa received for examination during this period, 37,917 were examined by F.M. Of these, 5,335 (14%) proved to be positive. Only those figures obtained after establishment of an adequate fluorescence team will be included here, covering exactly 10 months. During 5 months no diamond marker was available, and in the following tables it will be shown to what extent its lack handicapped the confirmation of scanty positives.

To illustrate the value of, and need for, experience in the use of F.M., comparative figures will be given of the results of one worker, who had already examined approximately 3,500 slides, and the rest of the team, which included beginners, who had examined only 300 specimens, although others had a great deal more experience.

The figures in brackets in both tables indicate how many of the F.M. positive and Z.N. negative smears contained only very scanty bacilli.

It will be noted that in the case of the single worker no more possibly false-positive results were recorded when a diamond marker was available. In all cases summarized in Tables II and III slides found negative were discarded without re-staining by Z.N.

without re-staining by Z.N.

As described above, before allowing new workers to discard their negative slides about 300 slides of each were checked by F.M. or by Z.N. In this manner, 1,489 slides were checked by F.M. Of these, 17 (1.5%) thought negative by the initial examiner were found positive. Of 1,144 slides checked by Z.N., 22 (1.9%) thought negative by the examiner were found positive. Practically all these positive result were missed during examination of the first 150 slides, and the majority were very scanty. A technical point which at first causes some difficulty is that of focussing on the correct plane of the slide, but this disappears with experience.

To ensure that a reasonably high standard of efficiency was maintained, batches of slides discarded by various examiners as negative, were periodically re-examined by Z.N. Of 1,162 slides checked in this way, 11 (0.95%) were found positive.

TABLE II.—NO DIAMOND MARKER AVAILABLE

				+FM +ZN	+FM -ZN		?FM +ZN	?FM -ZN	-FM	Total
Single worker	2.0	0.0		245	6	(5)	0	27	1,327	1,605
% of Total				15-3	0.4	(0.3)	0	1.6	82 - 7	
Other workers				1589	68	(57)	53	167	10747	12,624
% of Total				12.6	0.5	(0-4)	0.4	1.3	84-4	,
				TABLE	III.—DIAMONI	D MARKER AV	AILABLE			
				+FM +ZN	+FM -ZN		?FM +ZN	?FM -ZN	-FM	Total
Single worker			0.0	363	0		0	0	1,723	2,086
% of Total	0.0	0 0		17-4	0		0	0	82.6	2,000
Other workers	b 0	0 0		2,288	39	(30)	76	285	11,191	13,879
	9.0	0.0	0 0							13,079
% of Total	0.0	0.0	0 0	16.5	0.3	(0.2)	0.5	2.1	80.6	

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In order to compare the relative accuracy of the 2 methods, 2,730 specimens were examined in duplicate, one slide of each stained for fluorescence, and one for Z.N. As this manner of examination introduced some element of chance, only those smears on which, on re-examination, acid-fast bacilli could be found were counted in this comparison. In half the cases, routine Z.N. slides were checked by F.M., in the other half routine fluorescence slides by Z.N. In no case did the person being checked know this, whereas it could not be avoided that the person checking knew, which very likely increased their care in examining the slides. The results were as follows: 18 positives (0.66%) were missed by fluorescence workers whereas 49 positives (1.79%) were missed in examining Z.N.-stained films.

Although both figures are small, it will be seen that nearly 3 times as many positives were missed on the

Z.N.-stained smears.

It may be of interest here that during this double check the single worker of Tables II and III missed one slide containing one acid-fast bacillus in 420 slides, whereas 8 positives were missed by the examiners doing the counter-check with the Z.N.

Leprosy

Leprosy smears numbering 2,320 were examined during this period, each one by both methods, by one single examiner. Of these, 345 (14.9%) were positive by F.M. and Z.N., 21 (6.1%) of which were very scanty. Forty-six (1.9%) were found positive or doubtful by F.M., but could not be confirmed by Z.N. Three slides, found negative by F.M., showed acid-fast bacilli when stained by Z.N. All these were missed during examination of the first 150 slides of this series.

CONCLUSIONS

A. Tuberculosis

It was felt that the series of examinations briefly described above sufficed to answer the question set out at the beginning, namely, whether F.M. could with advantage be used as a routine method for the detection of *M. tuberculosis* in direct smears from sputa.

Assuming a correctly-adjusted lamp and consistently good staining, the main points in favour of the method

appeared to be:

1. Reduction of examination time in the hands of experienced workers. The time can be reduced to $\frac{1}{2}$ - $\frac{1}{3}$ of that needed for examination of Z.N.-stained smears. This is partly due to the fact that the field examined is larger and partly to the increased contrast in fluorescence-stained slides.

2. Cleaner, easier and simpler staining technique. Even should, as sometimes happens, the staining be unsatisfactory, the smears being either under-stained or under-decolorized, this is almost bound to be noticed during examination, and the preparations can then be re-stained for F.M. or Z.N., as desired. Badly-stained, scanty Z.N. smears might very easily be discarded as negative.

3. Slightly higher percentage of positive results, par-

ticularly where acid-fast bacilli are scanty.

4. Lessening of eye-strain. It was the consensus of all our fluorescence workers that, after the initial, rather tiring, stage of learning to accustom the eyes to the new method was overcome, F.M. is far more restful than the routine Z.N. method.

5. Use of dry objectives only. This also increases the speed of examination and facilitates re-staining of smears

where required.

Against the adoption of fluorescence microscopy as a routine method were the following considerations;

1. It is difficult to train and maintain a team of fluorescence workers capable of dealing with so large a number of specimens, unless non-medical personnel are utilized for the purpose, which is not done at present.

2. The equipment is costly, although, once installed, the maintenance costs are not prohibitive, taking into account the number of specimens dealt with and the

saving in medical officers' time.

3. The possibility of false-positive results must be borne in mind. Re-staining and re-examination of all positive and doubtful smears by the Z.N. technique, as practised during this investigation, largely offsets the initial gain in time—an important consideration, as approximately 14% of our smears proved to be positive

and many more doubtful.

In spite of these disadvantages, it was decided that, although at present impracticable as a sole routine method, F.M. could be used for the examination of a proportion of our specimens, and since these investigations were concluded, at least 40,000 more smears have been examined by this method, about 50% of all sputa received for examination. Experienced examiners are allowed to discard definitely-positive slides as well as negatives, and only scanty-positive and doubtful slides are checked with Z.N. Periodical checks on discarded positive and negative slides are carried out. They have proved satisfactory, and it appears that the policy of discarding definite positives does not introduce any error.

B. Leprosy

As regards leprosy, the position is slightly different. The results obtained by an experienced worker using F.M. appear equally good, even slightly better than those obtained by the Z.N. technique. The disadvantage here lies in the fact that most of the routine smears submitted for examination are poor and often contain debris, which retains the stain, so that there is always a risk of missing scanty acid-fast bacilli. We have hesitated to issue even a negative report without checking the result by the Z.N. technique. Consequently we have abandoned F.M. for this type of investigation, although we have no evidence that it is not equally useful in skilled hands.

SUMMARY

The possibility of using fluorescence-microscopy as a routine method for the examination of large numbers of specimens for *M. tuberculosis* and *M. leprae* was investigated. Fluorescence-microscopy yields a slightly higher proportion of positive results than the routine Ziehl-Neelsen technique, the examination-time is considerably reduced, the method appeared ultimately to cause less eye-strain and it is cleaner and easier than the Ziehl-

Neelsen method. These advantages outweigh the disadvantages of cost of equipment and training and maintenance of a suitable team of workers. The danger of obtaining false-positive results can be overcome by experience and checking of scanty positive and doubtful smears by the Z.N. technique. The method is at present used for about 50% of sputa received for examination.

Examination of leprosy smears by F.M., although it appears to give equally good results as the Z.N. technique, has been abandoned, mainly because routine smears submitted for this examination are often unsuitable for this method and have to be restained and re-examined by Z.N. to reach a diagnosis of reasonable certainty.

Our gratitude is due to the many members of our staff, medical and technical, who so patiently and willingly assisted with the preparation of the smears and their examination. Without their help this work would have been impossible.

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THE SIGNIFICANCE OF LOW SERUM CALCUIM VALUES IN THE SOUTH AFRICAN BANTU

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According to accepted standards, the diet of the South African Bantu, in common with that of many indigenous peoples dwelling in tropical and semitropical countries, is markedly deficient in calcium1-6. Moreover, as we have mentioned elsewhere,7 the dietary intake of vitamin D is negligible, that of phytate phosphorus is high, the calcium-phosphorus ratio is adverse (occasionally as wide as 1:10), and the intakes of protein and fat are less than are usual among White communities. These dietary factors are listed by many authorities, for example Bicknell and Prescott,8 as being unfavourable for the absorption of calcium. There is, of course, plenty of sunlight (an average of 9 hours per diem in the Transvaal) although some authorities like Hess9 consider that a dark skin militates against the production of vitamin D from According to current views, stigmata of calcium deficiency should be apparent, and low levels of the element in the blood serum have been listed by some investigators.10, 11 That low levels are common among Natives of Southern Africa, who are habituated to a low intake of calcium, is borne out by local evidence. 12, 13 Nevertheless, the view that low serum calcium values are evidence of calcium deficiency, and of reduced body stores, etc., is of questionable validity and open to a number of criticisms which will be discussed in this paper.

For a number of years at this centre we have been interested in the subject of calcium metabolism under conditions of low intake, and consequently we have determined serum calcium values on children and adults as opportunity offered. Particular attention has been given to pregnant and multiparous long-lactating mothers, among whom the effects of the drain of the element on serum values are of obvious interest.

We wish to stress that our studies concern Bantu children and adults in outward good health, and that subjects with altered serum calcium concentrations arising from various metabolic disorders, including rickets, have been excluded. The metabolism of calcium in the latter disease will be discussed in another paper.

SUBJECTS AND METHODS

- (1) Boys. (a) 23 subjects, aged 7-12 years, were outpatients at Coronation Non-European Hospital, Johannesburg, suffering from cuts, minor burns, and other ailments not likely to influence serum calcium levels. (b) A further group of 54 boys, aged 14-15 years, were delinquents at Diepkloof Reformatory, Johannesburg. They had been detained there for some months, and were employed on farm lands producing food (including milk) for their own consumption.
- (2) Adult Males. 48 men, aged 18-40 years, were newcomers from different Southern African territories examined in Johannesburg and passed as medically fit for service on the gold mines.
- (3) Adult Females. The 33 adult women were either out-patients or newly-admitted in-patients at Bara-

gwanath Non-European Hospital, Johannesburg, suffering from ailments unlikely to affect their serum calcium

(4) Pregnant Women. The 38 subjects examined were out-patients in their last trimester attending either Baragwanath Hospital, or a peri-urban health centre (Mooiplaats) near Pretoria, for routine examination. Medical officers considered their state of health to be representative of urban Bantu pregnant women.

(5) Lactating Women. The 55 subjects studied were either patients in Baragwanath Hospital admitted on occasions when their babies required treatment, or were out-patients attending that hospital or the peri-urban health centre mentioned previously. The mothers selected and studied were considered to be representative. Subjects had had 2 or more children, and had fed their babies for at least 5 months up to 12 months, the babies deriving all or almost all their nourishment from the breast milk.

Blood samples were taken by venipuncture, usually about 11 a.m. Serum calcium was determined by the method of Tisdall and Kramer as modified by Clark and Collin 14

The results are summarized in Table I. For comparison, data on other groups of subjects are included.

The initial question is whether these low values are compatible with good outward health, or whether they are essentially pathological and likely to be associated with relevant clinical stigmata. The Porto Rican soldiers studied by Ashford and Hernandez,²⁶ the Bechuana Bantu investigated by Squires,¹³ and also the Bantu mine-workers studied by us, all were in good outward health; moreover, the last group was passed as medically fit for hard physical work. Yet both Squires' subjects and our own were drawn from populations known to have been habituated to a calcium intake considerably less than that common among Europeans. The first point then is that low serum calcium values are common and that they occur in apparently healthy hard-working people.

If low values are not pathognomonic *per se*, what is their significance, i.e. what do they indicate or measure? The following 2 points are relevant:

(1) It has been observed that subjects habituated to a low calcium intake, and who have low serum calcium levels, may have the latter raised by improvements in diet. Thus, a group of Chinese mothers in poor nutritional condition had an average serum calcium value of 8.6 mg.%; after consuming the hospital diet the value

TABLE I.—SERUM CALCIUM VALUES IN BANTU AND OTHER GROUPS

C			Subjects					Serum Calcium (mg. %)			
Group		Subj	No.	Range	Mean						
1.	Boys	** **	(a) Bantu (Coronation) (b) Bantu (Diepkloof)				23 54	8·8-11·8 9·2-12·6	9.9 ± 0.8 10.3 ± 0.9		
			Kikuya 12				5 10 85	10·0-10·6 10·0-11·5	10·3 10·1 10·9		
2.	Adult Males		Bantu (Southern Africa)				48	7.9-10.9	9.5± 0.7		
3	Adult Females		Bechuanas ¹³ Kikuya ¹² Indian ¹⁷ Indian (students) ¹⁸ Indonesians ¹⁹ American Negroes ²⁸ Irish (working class) ²¹ Irish (students) ²¹ Bantu (S. Transvaal)				42 90 10 25 17 309 19 130	7·8-11·2 7·3-11·4 8·2-9·4 9·4-12·4 8·8-11·7 9·0-11·85 10·0-10·9 9·5-12·9	9·5 9·4 9·0 10·85 10·0 10·4 10·3 11·0 9·3 + 0·8		
٥.	Addit remaies		American ²² American ²³	**			16 207	9·7-11·3 10·0-11·5	10·4 10·8		
4.	Pregnant Women (7-9 mo	nths)	Bantu (S. Transvaal)				38	8.9-11.3	9.9 ± 0.7		
			Indian ²⁴ American ²² American ²³ British ²⁵				20 33 900 96	$9 \cdot 0 - 10 \cdot 5$ $8 \cdot 7 - 10 \cdot 8$ $6 \cdot 0 - 13 \cdot 7$	9·8 9·5 9·9 9·35		
5.	Lactating Mothers		Bantu (S. Transvaal)				55	9-3-12-8	10.2+ 1.0		

DISCUSSION

It will be apparent that our results on Group la boys and on our adult males and females, groups 2 and 3, confirm the findings of other local workers, ^{12,13} namely that mean serum calcium values in the Bantu are roughly one-tenth lower than the figures for the corresponding groups of White subjects cited.

became 9.3 mg. %.27 The Indian repatriated prisoners-ofwar studied by Walters et al.28 had an average serum calcium value of 8.6 mg. %; on hospitalization this was raised to 10.2 mg. %. The Central African patients of Orr and Gilks 12 had an average value of 9.3 mg. % before entering hospital; after treatment (for tropical ulcer) the mean value became 10.5 mg. %. Further, although our data on the Bantu boys in Groups 1a and 1b are not strictly comparable, it is probable that the higher mean value for the boys from Diepkloof Reformatory was due to their consumption of a diet of superior nutritional value compared with the diet of the outpatient boys living in Coronationville. The rise in values in the examples described may have been due either to the consumption of a more nourishing diet (more protein, etc.), or to the ingestion of a higher calcium intake, or to both causes.

(2) With White subjects, investigation has shown that administration of calcium supplements can slightly elevate serum calcium levels. 20-21 The elevations occur within 2 hours after ingestion of the supplementary calcium; further, the elevations appear to be transitory, lasting for a few hours only and returning to previous levels once the supplements are no longer given. The rapidity of elevation and fall suggests that serum calcium levels are unrelated to extent of body stores; also, it may be inferred that the elevations described in the previous paragraph were due to increases in calcium intake rather than to other changes in diet.

Briefly then, it would seem reasonable to consider that low mean serum calcium values in population-groups probably reflect habitually low intakes of the element, and do not essentially indicate low body stores.

Serum calcium in pregnant Bantu women. In White women it is a common observation that as pregnancy progresses serum calcium concentration falls, but returns to its previous level after parturition. 32 If serum calcium concentration in the Bantu responds to pregnancy in the same way in White women, then, assuming the groups to be comparable, one would expect the mean concentration for the group at term to be lower than the mean value for the non-pregnant group. Our Table, however, indicates an apparent rise during the pregnancy of Bantu women; moreover, the value at term approximates to that for the groups of White mothers mentioned.

Serum calcium in multiparous long-lactating Bantu mothers. An average White mother has a total bodycalcium of approximately 900-1,100g.33 During pregnancy, she provides the foetus with 20-30g. calcium, 33 and if she feeds her baby exclusively by breast feeding for 6 months, she loses an average of 60 g. calcium.34 For the Bantu, neither the total calcium in the mother nor the amount of the element in the foetus has yet been determined. The drain of calcium from the breast milk, however, is known to be similar to that for White mothers. 55,38 It will be apparent, therefore, that lactation, especially prolonged lactation as is usual among the Bantu, constitutes a much greater demand for the element than occurs during pregnancy. It is interesting therefore that the mean serum calcium concentration for our 55 multiparous long-lactating mothers was found to be higher than the mean value in the non-pregnant state and also higher than the mean value at term. Unfortunately, no corresponding data for long-lactating White mothers have been reported. Our findings are in harmony with the absence of reports of the occurrence of osteomalacia in pregnant and lactating Bantu women, despite their being accustomed to a diet of low calcium content. To throw additional light on the subject it is

our intention to determine serum calcium values from early pregnancy until late in lactation in the same individual Bantu women. To obtain such data will obviously take a considerable time, and it has been thought worth while to publish such information as we have already secured.

While it is apparent that good health may be enjoyed despite low serum calcium levels, it may be of interest to enquire whether the latter predispose to certain conditions, for example low calcium concentration in breast milk, inferior mineralization of bone, proneness to fracture of bones, and increased incidence of dental caries.

Calcium concentration in Bantu breast milk. Since milk is isotonic with blood, and milk calcium is derived from blood calcium, the question arises whether the low serum calcium values sometimes, though infrequently, observed in lactating Bantu mothers (Group 5) prejudice the calcium concentration of the breast milk. Firstly, the calcium concentration of Bantu milk, as alluded to above, has been found to vary within wide limits, 35,36 yet no wider than those limits and with the same average value that have been reported for American 34 and British 37 mothers' milks. Next, our detailed observations have revealed no correlation between serum calcium and breast-milk calcium values in the same mother. Observations on cows have shown that in the presence of low calcium intake and depleted calcium reserves, milk of normal calcium concentration is produced, but the yield is reduced. 38,30 Local paediatricians, however, maintain that Bantu mothers almost invariably have a good yield of milk, and aver that for the first 6 months there is parity in growth and general health between European and Bantu babies when exclusively breast fed. information suggests, therefore, that low calcium intake and occasionally low values in the serum prejudice neither the calcium concentration in the breast milk, nor the total yield of milk.

Mineralization of bone. In Ceylon, the general calcium intake is low, 40 but unfortunately no serum calcium data are available. However, Nicholls and Nimalasuriya 40 found the mineral composition of various bones from Singalese subjects to be the same as for European subjects who had been resident and had died in Ceylon. We have carried out a similar though more extensive study in this country, reaching the same conclusion. 41 Low serum values are therefore compatible with normal composition of bone.

Proneness to fracture of bones. Even though bone composition be normal it is conceivable that a low calcium intake and low serum calcium levels may reduce the total amount of bone laid down, thereby reducing tensile strength and predisposing to fractures. There appears to be no evidence that this is the case, in so far as fractures are concerned, for the view has been expressed that even with gross deprivation of calcium and other nutrients, adequate trauma is necessary to cause fractures. ^{42,43} But exact data of this type on the Bantu, or indeed on any other population, are not easy to obtain. Indirect evidence is available from the 4 million Bantu mine-workers employed on the Wit-





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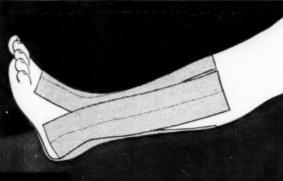
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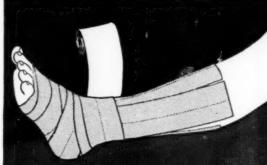
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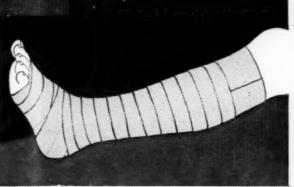
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Proneness to dental caries. Many authors believe that a low intake of calcium militates against satisfactory dentition and promotes dental decay. A corresponding claim does not appear to have been made in respect of low serum calcium values. It may be added that evidence from this country, ^{44, 45} Bechuanaland, ⁴⁶ Southern Rhodesia, ⁴⁷ and Central African territories, ⁴⁸ indicates that the general incidence of dental decay among the Bantu is lower than among Europeans.

SUMMARY

Serum calcium values have been determined in groups of Bantu children and adults in good outward health. It has been found that, in common with other populations dwelling in tropical and semitropical countries, low serum calcium values are frequently observed.

Discussion of our results and other relevant information indicates the following: (1) Low serum calcium values are compatible with good outward health. (2) The values probably reflect habituation to a relatively low intake of calcium. (3) They do not provide an indication of the extent of stores of body calcium. (4) They do not predispose to (a) low concentration of calcium in the breast milk; (b) poor mineralization of bone; (c) proneness to fracture bones, or (d) an increased incidence of dental caries.

We are grateful to the Medical Officers at the various hospitals and other centres who facilitated our collection of blood samples. This paper is published with the permission of the South African Council for Scientific and Industrial Research.

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SOME OBSERVATIONS ON THE EOSINOPHIL COUNT OF THE TUBERCULOUS BANTU

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When Bantu patients suffering from acute exudative pulmonary tuberculosis were admitted to this hospital, it was noted that despite the presence of various parasites in their stools an eosinophilia was nevertheless a somewhat rare occurrence. This was unexpected in view of the fact that in many cases intestinal parasites such as Ascaris, were present, which usually produce a considerable increase in the eosinophils of the host.¹

It was therefore decided to investigate this apparent anomaly in a number of patients, and to compare the

* Working under the auspices of the Tuberculosis Research Association.

results with those obtained from healthy controls of the same age and race.

INVESTIGATION

An oxalated specimen of venous blood was obtained from each patient between the hours of 8 and 8.30 a.m. The total eosinophil count and the total white-cell count were made, using in the former case a modified Pilot's fluid ² as a diluent. The eosinophil count was repeated on 5 consecutive days before specific anti-tuberculosis treatment was started. Specimens of blood from healthy volunteers of the same age and race (not cases of tuberculosis) were similarly examined. In addition, stool parasites were identified on samples obtained on 2

TABLE I

	Patients		Eosinophil	Count po	er c.mm.		Total W.B.C.	
	No.	1	2	Days 3	4	5	per c.mm.	Parasites in Stools
Patients with Stool Parasites which	1	355	488	300	266	266	8,700	Ascaris
usually produce Eosinophilia (A)	2	289	366	200	337	446	10,000	Ascaris
	2 3	577	515	611	488	474	8,400	Ascaris
	4 5	61	78	100	111	90	14,500	Ascaris
	5	200	153	82	84	-	6,800	Ascaris
	6	100	129	222	211	-	9,500	Ascaris
	7	122	200	210	_	-	10,700	Ascaris
	8	69	99	143	144	114	5,500	Ascaris
Patients without Stook Parasites		39	93	125	129	176	5,000	Cysts cf E. histolytica
which usually produce Eosino-	. 10	4	11	55	33	33	22,400	Trichuris trichiura
philia (B)	11	89	80	44	109	-	8,300	Ova of Taenia species
	12	44	78	. 55	70	60	8,400	Trichuris trichiura
	13	83	79	77	101	100	13,500	Trichuris trichiura and E. hist. ova
	14	150	277	167	158	130	10,800	Trichuris trichiura
	15	11	11	_ 11	-	-	5,900	Ova of E. histolytica
	16	93	105	115	119	117	13,000	Blastocystis heminis
	17	105	124	129	105	130	5,700	Blastocystis hominis
	18	11	11	16	33	68	13,000	Yeasts only
	19	122	144	133	122	-	13,200	Chilomastix
	20	81	117	155	210	188	15,900	ladamoeba butschlii
	21	17	22	44	-	-	12,500	ladamoeba butschlii
	22	10	10	10		-	11,800	Giardia lamblia
	23	33	33	94	120	96	11,500	Blastocystis hominis
Controls (A)		2,118	2,288	2,312	2,585	2,303		Ascaris
		1,169	1,111	1,096	1,195	1,114		Ascaris
		1,240	1,200	1,204	1,206	1,246		Ascaris
		2,310	2,300	2,211	2,215	2,200		Ascaris
Controls (B)		228	363	442	418	385		Trichuris trichiura
		344	399	356	418	405		E. histolytica cysts
		640	603	610	624	600		Trichuris trichiura and E. hist.
		362	304	382	369	350		Blastocystis hominis
		289	355	427	444	423		lodamoeba butschlii
		330	361	308	365	337		Blastocystis hominis

In patients No. 5, 6, 7, 11, 15, 19, 21, and 22, the general condition was so poor that treatment had to be started before the five days had elapsed.

the stain devised by Beemer.3

The results are shown in Table I

DISCUSSION

The total eosinophil count appeared to be reduced in the patients examined although there was a normal or increased total white-blood-cell count. This was the case both in those patients with significant parasites in the stools, in whom the counts were lower than in the controls, and also in the remainder, in whom the counts were below that usually considered normal.

Thorn and Forsham 4 used the level of the total circulating eosinophils as an indication of the amount of ACTH being produced in the body. They found that this level was considerably lower in obesity due to Cushing's disease than in obesity due to excessive food intake, concluding that in the former condition ACTH production was increased.

The lower eosinophil count which has been shown to be present in the tuberculous patients listed above may therefore be evidence of an increased ACTH production in these subjects. Now, it is known that both ACTH and cortisone have a deleterious effect in tuberculosis of the lungs, both in the experimental animal 5, 6, 7, 8 and in man.9, 10, 11 The effect is thought to be related to the inhibition of the healing process which takes place, and it has been noted that this inhibitory tendency of the hormones is enhanced when the protein reserves of the animal are depleted.12

It may be that in the patients concerned, the original tuberculous infection acted as the non-specific stressor

successive days from both patients and controls, using of Selye on the pituitary gland. In this way excessive amounts of ACTH can be produced, thus increasing the output of cortisone. Both these substances would inhibit healing of the focus and result in its spread, this being enhanced by the low protein reserves which so often exist.

This may account for the severity of tuberculosis in the African, who, it is generally recognized, lives on a diet low in animal protein, and this paper is presented in the hope that larger laboratories with full biochemical facilities may investigate the theory suggested.

I should like to express my thanks to Dr. B. A. Dormer for permission to publish this paper: to Dr. E. B. Adams for much helpful criticism, and to Miss J. C. Holzhaus and Abenidgo Mkosi for technical assistance.

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ASSOCIATION NEWS: VERENIGINGSNUUS

CAPE WESTERN BRANCH DISCUSSES OUT-PATIENT FACILITIES AND PROPOSED MEDICAL CENTRE

At a special meeting of the Cape Western Branch held on 27 November 1953 at which the President Mr. R. Lane Forsyth was in the chair there was considerable discussion on the question of separating out-patient departments from Hospital sections in Provincial Hospitals. The proposed Medical Centre on the Foreshore was also discussed.

Separation of the Out-patient Departments from the Hospital Section in Provincial Hospitals.

The President said this particular item was placed on the agenda at the request of Dr. Sichel and certain general practitioners from the Wynberg area. The position was that the Provincial Administration was not prepared to increase out-patient facilities at the Wynberg Hospital and maintained that this was the responsibility of the Central Government.

Dr. Sichel said the Medical Committee of the Wynberg Hospital had been advised by the Provincial Administration that no extension of out-patient facilities was possible and that the Provincial Administration had asked the Committee to curtail even existing out-patient facilities. He had then suggested to that meeting that the President be asked to call a special meeting of the Branch to discuss this problem. Dr. Sichel felt that this meeting should pass some resolution asking the Executive Committee of Federal Council

to have this matter ventilated at the highest possible level.

The Wynberg Hospital had been officered for many years by general practitioners and gradually specialists had been added. No extension had ever been made to that hospital, and the outpatient work which had been built up through the years was still being done in 3 very small rooms with a very small theatre attached. The out-patient department was very overcrowded and on an average 200 patients were seen a day. Since the position had become impossible an approach had been made for better accommodation, but the Province had stated that no such provision could be made,

and suggested that the hospital restrict the number of patients attended to in out-patient departments.

The President then said that members must decide whether they were prepared to accept this position, and declared the meeting open

Dr. J. P. de Villiers said in 1944 when the report of the National Health Services Commission was tabled in the House of Assembly a definite policy was formulated that the hospitals would belong to the Province, and that out-patient services would be the responsibility of the Central Government. The idea then was that in-patient treatment would be given by the Province in the general hospitals, and it was envisaged that 'health centres' would be established where the general practitioner would practise. The Government furthermore envisaged small out-patient departments attached to general hospitals where specialist services would be made available to the hospital and to the general practitioner through the 'health centre' service. This was based on the National Health Service in Great Britian where, however, there would be free service for the whole nation.

It is now known that the 'health centre' service did not materialize, but there was an understanding between the Centra Government and the Province that the Government would hold itself financially responsible for approved out-patient services. The Cape Town Free Dispensary is an example of such an outpatient service not attached to a hospital. The position is not so clear in regard to out-patient Departments attached to general hospitals.

The Government had in mind the establishment of clinics in such areas as Maitland and Athlone run on the lines of the Cape Town Free Dispensary, and the general practitioners who served at those clinics would be remunerated on a sessional basis.

Dr. de Villiers was of the opinion that we should support the Government in establishing out-patient departments away from the hospitals. Cases requiring specialist services could be sent to the general hospital, or the specialist service could be brought to the out-patients department. He also felt that the Branch should support the establishment of out-patient departments with the aid of the Local Authority, who would provide the buildings. These centres would give a real service to the poor. The Government would take favourable cognisance of a suggestion from the Medical Association that general practitioners would be prepared to give a service outside the precincts of the general hospital. He advised general practitioners to think seriously on these lines before they came to the conclusion that they want to extend the present service. (Acclamation.)

PRACTITIONERS' POINT OF VIEW

Dr. H. Shear giving the view of the general practitioner said the view outlined by Dr. J. P. de Villiers was offering the general practitioner what he did not want. General practitioners did not want to be relegated to something away from the hospitals. There were still quite a number of general practitioners on the staffs of various hospitals and the general practitioners wanted to stay there. The position was that if patients were admitted to hospitals from detached out-patient departments they would be lost to him and treated by specialists, whereas if the general practitioner sees a patient and admits the patient, the patient remains his.

Dr. S. Shulman was in favour of having out-patient departments

Dr. S. Shulman was in favour of having out-patient departments run by general practitioners and specialists and pointed out that in Cape Town where the population consisted of 50% European and 50% non-European, the European patient would be referred to a nursing home and that there were no such facilities for non-European patients. He proposed that the Association should support a proposal that the out-patient departments should remain attached to the hospitals.

Dr. Luke said he failed to see what convenience it would be to a patient living in the Cape Flats to go to Somerset Hospital for treatment, when he passed the Free Dispensary where he could obtain free treatment. Dispensaries were being set up in places belonging to the Administration or lent to the Administration by the Divisional Council to relieve the overcrowding in the hospitals out-patient departments. He felt that it was not reasonable for people to travel miles and miles and wait for hours and hours for treatment when they could go to a dispensary and save time by getting treatment there. He felt that teaching could be done just as well at a dispensary.

The President summed up by saying that if the general practitioners want to retain their position in the out-patient departments at present attached to hospitals they must come to a decision as to whether they were in favour of the establishment of free dispensaries or whether they were in favour of the extension of out-patient departments attached to hospitals.

THE RESOLUTIONS

Mr. J. A. Currie then proposed, seconded by Dr. H. H. Jacob, that this meeting of the Cape Western Branch resolves that the separation of the out-patient facilities from in-patient practice in general hospitals is detrimental to the interests of the patients, of the hospital staffs and of under-graduate education. This meeting furthermore urges that the administration of in- and out-patient services be integrated under one authority. (Acclamation.)

Mr. Cole Rous proposed, seconded by Dr. Luke that this meeting views with grave concern the alarming deterioration in the out-patient services in the Cape Peninsula Provincial Hospitals and considers that the position is a public scandal. The meeting insists that the Central Government immediately fulfils its declared obligation to provide for the urgent need of out-patients. (Acclamation.)

It was agreed (i) that these resolutions be sent to the Medical

It was agreed (i) that these resolutions be sent to the Medical Secretary to be referred to the Parliamentary Committee. (ii) If invited by the Joint Hospital Board of the Cape Peninsula, the Cape Western Branch be prepared to send representatives. (iii) That these resolutions be published in the Journal.

PROPOSED MEDICAL CENTRE

The Proposed Medical Centre on the Foreshore. The President stated that some time ago Branch Council had considered whether the decision of extending Medical House at a cost of £22,000

should be reviewed. He thought it was the feeling of Branch Council that that decision should be rescinded in view of the possibility of building a Medical Centre on the Foreshore. If this meeting agreed to rescind that decision temporarily until the doctors practising in Cape Town had decided whether to support a Medical Centre on the Foreshore the business of this item could be dealt with in a few minutes.

The President stated further that at the present moment the Branch was committed, as a result of a resolution taken at the last business meeting in June, to become involved in the building of two additional floors at Medical House. It had now been found that this was not as desirable as it appeared at the time, but Branch Council could not rescind what had been passed by the Branch itself.

Dr. J. S. du Toit said we should first approach all the different doctors and find out whether they were prepared to invest in a Medical Centre. He said he had gone into the proposition and had taken expert opinion. He had a detailed statement as to what the Branch might land itself with, and what the Branch could get from it. He felt that it was desirable to have a large number of medical men in one building. He felt that to make it a success men of the younger generation of the medical profession would need to put down £75,000. At least 75 members would have to enter the scheme and it would be desirable for each doctor to put down £650 to £700 as a deposit. They would thus be taking up a certain amount of space and become shareholders.

Dr. C. Shapiro said that the question of re-building Medical House had nothing to do with the proposed Medical Centre. Head Office found it needed more room and a scheme was worked out by which several floors could be added to Medical House to provide more space for both the Head Office and the Branch. This scheme remains. There was no reason why the Branch could not go ahead with it if necessary.

The scheme for the Medical Centre was that the profession would be getting the best spot in Cape Town. When this building was erected in 2 years time, doctors would be no farther from the Cape Town Railway Station than Dumbarton House is. From the Medical Association point of view the Branch could participate by investing a small amount of capital for its own needs and so become a participant in the scheme. If the Cape Western Branch did not interest itself in this scheme the doctors would not interest themselves.

It was moved by Dr. J. H. L. Shapiro, seconded by Mr. Cole Rous,

that this meeting of the Branch approves of the establishment of a Medical Centre in Cape Town and approves of the idea that the Branch should participate in the scheme. This was agreed.

Dr. J. K. de Kock stated that the investing of money could only be sanctioned at the annual general meeting and that he would include this item in his annual report. Agreed.

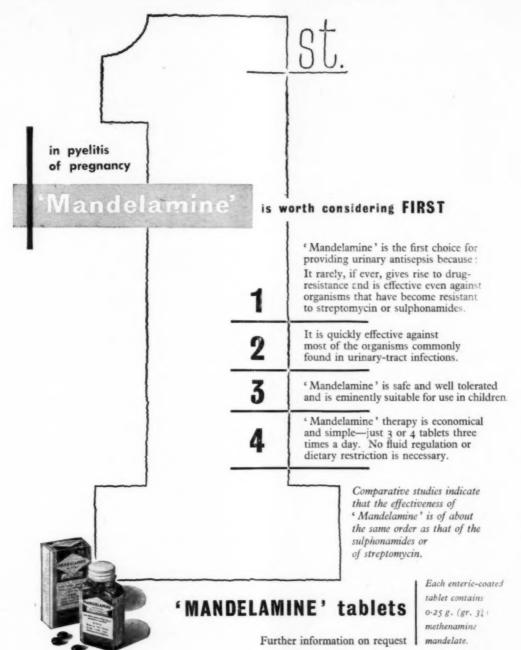
Dr. Meyer stated that Mr. Fisher of Syfret's Trust had been invited to inform the doctors about the scheme, and asked the President to terminate the meeting in order that Mr. Fisher could be called in to discuss the matter.

EARLIER BUSINESS

Smaller items on the agenda were discussed earlier in the meeting.
(1) Amendment of Rule 13 and Schedule 'B' of the Constitution of the Cape Western Branch so as to read as follows:

'A nomination paper, in accordance with Schedule A in the Annexure, shall be sent to every member of the Branch before 1 November, and shall be returned, duly filled in, together with the written consent of the nominee or nominees before 20 November in each year. The Secretary shall then issue before 1 December to every member of the Branch a numbered ballot paper in accordance with Schedule B, enclosed in a separate envelope bearing the same number, which ballot paper shall be returned to the Secretary of the Branch in the numbered envelope to be signed by the member, and must reach the Secretary before 1 January. At the ordinary meeting in November, two members of the Branch shall be appointed as returning officers, and they shall consider the votting papers as confidential, and report to the Annual General Meeting in January. In the event of equality of votting, the Annual General Meeting shall make a choice by ballot'.

It was proposed by Dr. C. Shapiro and seconded by Dr. J. G. Louw that this amendment be accepted. When this had been agreed



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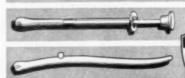














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to the Secretary was instructed to give notice of motion of this amendment at the Annual General Meeting in January, 1954.

(2) Appointment of scrutineers for Branch Council elections. Dr. P. J. M. Retief and Dr. A. I. Goldberg were nominated and

declared elected.

(3) A letter from the Medical Secretary was read stating that Federal Council proposed amending By-Law 34(b) of the Memorandum and Articles of the Association so that the President of the Association if not already a member of the Federal Council would be an ex officio member of the Federal Council and its Executive Committee during his Presidential year. The new By-Law would read: 'The President, the immediate Past Chairman and the Honorary Treasurer shall be ex officio voting members of the Federal Council and of its Executive Committee'.

The meeting agreed.

PRACTITIONERS' FEES

(4) A letter from the Chairman of the General Practitioners' Group, Cape Town, submitting a resolution from the Group (Cape Town) that the customary fees for general practitioners in

this area be raised from 15s. and 12s. 6d. to £1 1s. and 15s. for domiciliary visits and consultations at the rooms respectively, was read. The President stated that this resolution was discussed at the Branch Council meeting when it was decided that it be referred to the Branch for approval

Dr. L. Blumberg speaking in support of this resolution said these fees should be regarded as maximum fees, and that any practitioner wishing to charge less was free to do so. This increase would bring

the Cape Western Branch in line with the other Provinces.
On the proposal of Dr. Blumberg, proposed and seconded by Mr. Cole Rous, this resolution was accepted.

Dr. A. W. S. Sichel pointed out that at the last meeting of Federal Council it was resolved to appoint a special Sub-Committee of Federal Council to go into the whole question of customary fees and in due course this Branch would be asked to submit its pro-

Dr. F. R. Luke said he hoped that notification of the change of fees would be made in the public press as on the last occasion.

After lengthy discussion the question was put and carried by 27 to 7 that the new fees be published in the Press by the Branch.

THE BENEVOLENT FUND: DIE LIEFDADIGHEIDSFONDS

The following contributions to the Benevolent Fund during December 1953, are gratefully acknowledged:-Votive Cards in Memory of:

Mrs. S. Helfet by Dr. A. W. Sichel.

Gillian Welsford by Dr. and Mrs. R. Theron.
Dr. Jack Baynash by Dr. N. Fram, Members of his Firm at the Hospital, Mr. J. Edelstein, Dr. Cyril Adler.
Dr. C. J. Watson by Dr. A. W. Sichel.
Dr. David Barris by Dr. H. R. Haigh.

Mrs. Wolfowitz by Dr. Cyril Adler. Dr. Otto Hooper by Dr. G. F. van der Merwe.

Total Amount received from Votive Cards: £20 19s.

Services rendered to:

Mrs. Henderson by Dr. A. Jowell.
The Late Mr. H. Potash by Dr. H. L. Heimann, Mr. J. Wolfowitz,
Dr. S. Hoffman, Drs. Sims, Gluckman, Bloomberg and
Lewin and Mr. E. Lipworth.

Dr. U. E. van der Merwe by Dr. R. V. de Villiers. Dr. W. Josselsohn by Dr. P. Lynch. Richard, Son of Dr. J. B. Lurie by Dr. S. Heymann and E. Samuel and Drs. S. Sims, J. Gluckman, B. Bloomberg and W. Lewin.

Dr. G. F. van der Merwe by Dr. Brotman.

Total amount received from Services Rendered: £43 15s. 6d. Donations:

			£	S.	d.
Branch	 	 	469	7	8
Dr. W. L. McClure	 	 		5	0
Dr. H. D. Atherstone	 	 	2	2	0
			£545	9	2

PASSING EVENTS: IN DIE VERBYGAAN

UNION DEPARTMENT OF HEALTH

Report for the five days ended Tuesday, 22 December 1953

Nil.

Smallpox Transvaal. No further cases have been reported from the Potgietersrust district since the notification in Bulletin of 26 November 1953. This area is now regarded as free from infection.

Typhus Fever. Nil.

Epidemic diseases in other countries.

Plague: Nil.

Cholera in Madras, Tiruchirappalli, Tuticorin (India); Dacca (Pakistan); Rangoon (Burma).

Smallpox in Bombay, Cochin, Delhi, Kanpur, Madras, Naga-pattinam (India); Karachi (Pakistan); Saigon-Cholon (Viet-Nam); Phnom-Penh (Cambodia).

Typhus fever in Baghdad (Iraq).

UNION DEPARTMENT OF HEALTH BULLETIN

Report for the seven days ended Thursday, 17 December 1953. Plague, Smallpox, Typhus Fever. Nil.

Epidemic diseases in other countries:

Plague: Nil.

Cholera in Madras, Tiruchirappalli (India); Chalna, Dacca (Pakistan).

Smallpox in Bombay, Cochin, Delhi, Kanpur, Madras, Nagapattinam (India); Haiphong, Saigon-Cholon (Viet-Nam).

Typhus Fever: Nil.

ANTI-BILHARZIA COMPOUND

A thioxanthone derivate at present known as WIN 4304, synthesized by Drs. Sidney Archer and C. M. Suter of Rensselaer, N.Y., U.S.A., has been found to be powerfully effective against

all three forms of bilharzia, and well tolerated by human beings, according to a report read before a meeting of the American Society of Tropical Medicine and Hygiene in Louisville, Ky. on 12 November 1953.

The drug is related to Miracil D (1-methyl-4-beta-diethylaminoethylaminothioxanthone), which was developed by Mauss in Germany in 1946, but is said to be both 16 times more effective therapeutically, and 16 times safer. Miracil D was reported to be most effective against *Schistosoma hematobium*, less effective against *S. mansoni*, and ineffective against *S. japonicum*; but WIN 4304 is said to be equally active against all three species.

Laboratory tests of the new compound were performed in Rensselaer by Drs. D. A. Berberian, E. W. Dennis and H. W. Freele.

SOUTH AFRICAN MEDICO-LEGAL SOCIETY

An Extraordinary General Meeting of the South African Medico-Legal Society will be held at 8.15 p.m. on Monday, 25 January 1954, at Medical House, 5, Esselen Street, Hospital Hill, Johannesburg. The proposal will be submitted that the Constitution be altered so as to admit to membership certain legal students (Bar and

Side Bar) and certain medical students.

At the conclusion of the Extraordinary General Meeting a meeting of the Society will be held at which Dr. Henry Yellowlees, O.B.E., M.D., F.R.C.P., D.P.M., will deliver an address on the subject, 'Guilty, but Insane'. Dr. Yellowlees will include in his address his reminiscences as a medical witness, with special reference to the McNaghten Rules. After the address the subject will be open for discussion.

RABIES CONTROL IN SOUTHERN RHODESIA

Under a recent Government Notice (Southern Rhodesia Government Gazette, 24 December 1953) all dogs on the Rhodes Estate, Myanga, must be confined, claimed or tied up during a period of 30 days. Dogs found at large may be destroyed.

PROPOSED COLLEGE OF PHYSICIANS AND SURGEONS OF SOUTH AFRICA

The following is a copy of a memorandum which has been despatched to all Founders of the proposed College Physicians and Surgeons

of South Africa:
It will be recalled that in a previous Memorandum issued in June 1953 it was indicated that the closing date for sending in applications for membership had been extended to 31 July 1953 and as a result of further discussions with a group of interested practitioners this date was further extended to 30 November last.

The response received has been very considerable, the applications for membership numbering close on 400, whereof about 300 represent would-be Fellows and over 100 would-be Members.

As further indicated in our previous Memorandum, various suggestions for the modification of the draft Constitution have been received and it has been agreed that all would-be Founders may move any further amendments of the draft Constitution at the inaugural meeting, provided due notice of motion of such proposed

amendments is given to the Committee.

The object of this circular is therefore to invite you as a subscriber to submit any amendment to the Constitution which you may regard as desirable with a view to promoting the general interest of the College and you are accordingly requested to send in your relative suggestions, if any, in the form of a duly worded motion to the Secretary on or before 13 February 1954.

We would add that after the closing date for receiving any suggested notice of motion for the amendment of the Constitution the Committee will send you a further circular indicating the suggested amendments received and inviting you to an inaugural meeting to be held some weeks thereafter at a time and at a place convenient to the majority, and it is thus anticipated that the meeting will be held in Johannesburg. Together with the list of proposed amendments we shall be sending you an agenda for the meeting and any other information which may seem necessary or of interest.

Meanwhile it may be stated that the primary function of the inaugural meeting will be to elect a Frist Council who will then take into consideration any resolutions passed at the inaugural

meeting including any resolutions regarding the proposed amendment of the Constitution with a view to these suggested amend-ments being co-ordinated and implemented so far as possible in accordance with the general wishes and views as expressed at the inaugural meeting.

As previously indicated, you will be able to furnish a proxy in case you cannot attend the inaugural meeting yourself

It should be added that it is recognized that as the draft Constitution is liable to further amendment you are not finally bound to become a member of the College unless and until the draft Constitution as revised has been re-submitted to you and you have been afforded an opportunity of signifying the withdrawal of your application if you should so desire.

In other words, it is recognized that the First Council may not on its own make any amendments or modifications of a radical character or as regards matters of principle without such changes

having been communicated to and accepted by subscribers.

Each subscriber will therefore have the right to withdraw his application for membership of the proposed College and to have his subscribtion refunded to him provided he notifies the First Council of such withdrawal by a given date if the Constitution as finally settled for submission for registration is not acceptable to him.

As will, we believe, be clear to you, the foregoing matters will be dealt with in greater detail in a further circular, and the more immediate object of this communication is to invite you to send in any notice of motion for the amendment of the Constitution which you may deem necessary. In this connection you will kindly bear in mind that the closing date for doing so is 13 February 1954.

A. W. S. Sichel Chairman of the College Committee A. H. Tonkin Secretary of the College Committee.

Cape Town 16 January 1954

MEDICAL CONFERENCES IN GREAT BRITAIN

This list of forthcoming medical conferences in Great Britain in 1954 has been issued by the British Medical Association. Inclusion in the list does not imply B.M.A. approval. It should be noted that dates and other particulars are liable to be changed. The name

of the secretary or organizer is given in each case.

Information on meetings not included in the list may be obtained on application to the Public Relations Department, British Medical Association B.M.A. House, London, W.C. 1., England

- Joint Meeting of the Society of Applied Bacteriology and the Society of the Chemical Industry-Microbiology Group. At London. G. Sykes, Eag., M.Sc., F.R.I.C., Boots Pure Drug Co. Limited, Microbiology Division, Nottingham. England. Symposium on 'Industrial Methods of Sterilization'. At the Institution of Civil Engineers, Great George Street, London January 13
- Symposium on Industrial Methods of Sterutsulon. At an Institution of Civil Engineers, Great George Street, London, S.W. 1., England.

 January 16 British Dietelte Association—Quarterly Meeting. At University College Hospital, Gower Street, London, W.C. 1., England. The Secretary, British Dietelte Association, 251, Brompton Road, London, S.W. 3., England.

 17-18 Royal Medico-Psychological Association—Quarterly Meeting.* At London. The Hon. Socretary, Royal Medico-Psychological Association—Quarterly Meeting.* At London. The Hon. Socretary, Royal Medico-Psychological Association. 4. At Manson House, 26, Portland Place, London, W. 1. The Secretary, British Tuberculosis Association of Grosvenor Place, London, S.W. 1., England.

 April 8-10 Association of Clinical Pathologists—Spring Meeting.* At Harrogate. Dr. W. McMenenny, Maida Vale Hospital for Nervous Diseases, London, W. 9, England.

 23 British Taberculosis Association—Provincial Meeting.* At Midhurst. The Secretary, British Tuberculosis Association 16 Grosvenor Place, London, S.W. 1, England.
- 26-30 Course for Workers for Maladiusted Children. Organized by Association of Workers for Maladiusted Children. At Kingsgate College, Broadstairs. The Secretary, Otto L. Shaw, Esq., Sutton Valence, Kent, England.

 27-30 Royal Santiary Institute Health Congress. At Scarborough. The Secretary, The Royal Santiary Institute, 90 Buckingham Palace Road, London, S.W. I, England.

 10-14 British Dental Association—Annual Conference. At Blackpool. Public Relations Department, The Association, 13 Hill Street, London, W. 1, England.

 13-15 Association of Surgeons of Great Britain and Ireland—Meeting. At Leeds. Dr. Henry Wright, The Association, 45 Lincoln's Inn Fields, London, W. C. 2, England.

 17-19 American College of Surgeons—Sectional Meeting. At London, The Secretary, Dr. Michael L. Mason, 40 East Eric Street, Chicago II, U.S. America.

 British Tuberculosis Association—Annual Conference. At Oxford. The Secretary, British Tuberculosis Association, 16 Grosvenor Place, London, S.W. I, England.

 19 British Medical Association—Annual Representative and Scientific Meetings. At Glasgow. Public Relations Department, The Association, B.M.A. House, Tavistock Square, London, W.C. 1, England.

 12-22 Third International Congress of Gerontology. At London and
- May
- June July
 - - Association, B.M.A. House, Tavistoca Square, Sociation, B.M.A. House, Tavistoca Square, Sociation and Oxford. Prof. R. E. Tunbridge, Department of Medicine, General Infirmary, Leeds, England.

 13-16 Royal Medico-Psychological Association—Annual Meeting.*
 At London. The Hon. Secretary, Royal Medico-Psychological Association, 11 Chandos Street, Cavendish Square, London, W. I., England.
- Brilsh Association for the Advancement of Science—Annual Meeting. At Oxford. The Association, Burlington House, Piccadilly, London, W. 1, England. September 1-8
- * Meeting open to members. Any guests should be introduced by members

DOCTORS WILL MEET IN KILLARNEY

Killarney, one of the world's most famous beauty spots, has been chosen by the Irish Medical Association for its Annual General Meeting next year on 7-10 July. The meeting will be attended by doctors and their wives and friends from all over Ireland. Usually held at one or other of Ireland's most beautiful resorts, these

gatherings have long since established a name for themselves for their enjoyable and informal atmosphere.

Killarney has a great deal more to offer than its much-praised scenery. Its hotels are among the most luxurious in Ireland—and the tariff, even for the best cannot be considered as expensive.

There is free and excellent fishing on all three of its lakes, and game shooting in the area is also mostly free. The golf course, on the shores of Lough Leane, is one of the finest in the country; and there is an abundance of tennis, bathing and boating.

As a final inducement for those who like scaling heights, Killarney nestles at the foot of 3,400-foot Carrantouhill highest mountain in Ireland. Nearby are other peaks—the Reeks, the Purple Mountain group and the Devil's punch Bowl.

PRELIMINARY PROGRAMME

While many of the details of the annual Meeting have yet to be worked out, here are some of the features of the preliminary programme:

7 July: Annual General Meeting of the Irish Medical Association. In the evening, the President's reception will be open to members

and visitors.

8 July: Morning Session. Address by Mr. Terence Millin, F.R.C.S., All Saints Hospital, London, on 'Urological Emergencies in General Practice.' The subsequent discussion will be opened by Mr. Ian Frazer, F.R.C.S., Vice-President, R.C.S.I., Royal Victoria Hospital, Belfast, and Dr. T. J. D. Lane, Meath Hospital.

Afternoon Session. Address by Dr. William O'Donovan, Director, Dermatological Department, London Hospital, on 'Drug Eruptions, Old and New'. The discussion will be opened by Dr. P. MacCarvill, St. Anne's Hospital, Dublin, and Dr. J. O. C. Donelan, St. Laurence's Hospital, Dublin.

In the evening the annual dinner of the Association, open to members, their wives and guests, will be held at the Great Southern

Hotel, Killarney.

9 July: Morning Session. Sir James Spence, M.D., F.R.C.P., Professor of Child Health, University of Durham, England, will open a discussion on 'Recent Advances in Paediatrics', to be followed by Dr. W. R. F. Collis, National Children's Hospital, Harcourt Street, Dublin, and Dr. J. Mowbray, Children's Hospital, Teorgical Street, Publin, and Dr. J. Mowbray, Children's Hospital, Temple Street, Dublin.

The afternoon will be devoted to excursions, golf and fishing competitions, open to members and visitors. That evening a Dance will be held in aid of the Medical Benevolent Fund.

10 July: In the forenoon there will be Clinical Demonstrations at the Mental Hospital, Killarney.

Full information on hotels, tariffs and local tourist attractions can be had from the Irish Tourist Association, Upper O'Connell Street, Dublin.

REVIEWS OF BOOKS : BOEKRESENSIES

SURGERY OF THE BILIARY TRACT

Surgery of the Biliary Tract, Pancreas and Spleen. By Charles B. Puestow, M.D., Ph.D. (Pp. 370 with 72 illustrations. \$9.00.) Chicago: Year Book Publishers, Inc. 1953.

Contents: Section I. The Liver. 1. General Considerations. 2. Anatomy and Physiology of the Liver. 3. Surgical Diseases of the Liver. 4. Complications of Liver Disease. 5. Portal Hypertension. Section II. The Extrahepatic Biliary Tract. 7. Diseases of the Gallbladder. 8. Complications of Cholecystic Disease. 9. Preoperative and Postoperative Management. 10. Anesthesia for Biliary Tract Surgery. 11. Gallbladder Surgery. 12. Surgery of the Bile Ducts. 13. Factors Causing Symptoms after Biliary Tract Surgery. 13. Anatomy and Physiology of the Pancreas. 15. Benign Surgical Lesions of the Pancreas. 16. Carcinoma of the Head of the Pancreas. Section IV. The Spleen. 17. Anatomy and Physiology of the Spleen. 18. Indications and Contraindications for Splenectomy. 19. Splenectomy. Index

The Year Book Publishers of Chicago have issued a series of surgical monographs on operative surgery in different specialities. Previous volumes have dealt with the stomach and duodenum, the chest, the intestinal tract and surgical urology. Readers of these volumes will not need to be persuaded of the excellence of the present volume dealing with the biliary tract, pancreas and spleen.

As in the other works, the illustrations are vital to the text but, unlike the others, there is greater concentration on theoretical aspects of the subject. This is inevitable when practical considerations of, say, liver-function tests arise in the

handling of patients.

The pros and cons of shunts in the treatment of portal hypertension are considered, but the description of actual procedures is somewhat sketchy. The present reviewer finds procedures is somewhat sketchy. The present reviewer finds it difficult to share the author's disapproval of cholecystectomy from the fundus downwards, but this is a small point in a book which no practising surgeon can avoid buying. It is amazing how much sound sense, practical advice and clear instruction is contained in this relatively small volume. It should stand in our book-shelves as a mute reproach to its ponderous and unreadable neighbours.

DISEASES OF CHILDREN

Holt Pedictrics. By L. Emmett Holt, Jr. and Rustin McIntosh. Twelfth Edition. (Pp. 1485 + xvii, with 272 illustrations. \$15.00). New York: Appleton-Century-Crofts, Inc. 1953.

Contents: 1. General Considerations 2. The Newborn Infant. 3. Premature Infants. 4. Nutrition and Nutritional Disturbances. 5. Deficiency Diseases. 6. The Eyes. 7. The Mouth, Nose, Throat and Ears. 8. The Alimentary Tract. 9. The Lungs. 10. The Circulatory System. 11. The Blood and Blood-Forming Organs. 12. The Spleen. Lymph Nodes and Thymus. 13. The Ductless Glands. 14. The Bones and Joints. 15.

Collagen Diseases. 16. The Genito-Urinary System. 17. The Skin. 18. Allergy. 19. Psychopathologic Problems. 20. The Nervous System. 21. The Muscles. 22. The Specific Infectious Diseases. 23. Miscellaneous Diseases. 24. Accidents and Poisonings. Appendix. Index.

This text-book on diseases of children is stated to be read by 75% of medical students in U.S.A., and one wonders what the other 25% were thinking of, because it is a beautiful book, authoritative, comprehensive, well produced and with references in support of each chapter.

There is a short chapter on the use of ACTH and cortisone which are further considered in chapters dealing with relative diseases. The newer antibiotics are also taken into account. Mention is made of NPH insulin in the treatment of diabetes.

The reviewer is interested to observe that lumbar puncture is not recommended in cerebral haemorrhage in the new-born, and supports this attitude. A statement is made sug-gesting that idiopathic megacolon is synonomous with Hirschsprung's disease, which is not generally agreed.

There are 72 contributors, many internationally known,

and this book can be unreservedly recommended for those who study paediatrics against a background of general medicine.

P.V.S.

DISEASES OF WOMEN

Diseases of Women. By ten teachers under the direction of Frederick W. Roques, M.D., M.Chir., F.R.C.S., F.R.C.O.G. Edited by F. W. Roques, J. Beattie and J. Wrigley. (Pp. 480 + viii, with 177 figures. Ninth Edition. 28s.) London: Edward Arnold & Company.

Contents: 1, The Anatomy of the Female Pelvic Organs. 2. Blood Vessels, Lymphatics and Nerves of the Pelvis. 3. The Anatomy of the Pelvic Floor. 4. Development of the Female Genital Organs. 5. Malformations of the Female Genital Organs. 6. Abdominal and Vaginal Examination. 7. The Sex Hormones. 8. Physiology of the Menstrual Function. 9. Puberty and the Menopause. 10. Amenorrhoea. 11. Abnormal Menstruation. 12. Dysmenorrhoea. 13. Backache. 14. Dyspareunia. 15. Sterility. 16. Pruritus Vulvae. 17. Disorders of Micturition. 18. Genital Prolapse. 19. Backward Displacement of the Uterus. 20. Inversion of the Uterus. 21. Displacements of the Ovary. 22. Infections. Vulvitis, Vaginitis. 23. Infections (Contd.): Cervicitis. 24. Infections (Contd.): Acute Corporeal Endometritis. 25. Infections (Contd.): Salpingitis. 26. Infections (Contd.): Genital Prolapse. 19. Pelvic Peritonitis. Pelvic Cellulitis. 27. Venereal Diseases: Syphilis, Gonorrhoea, Chancroid. 28. Tuberculosis of the Genital Tract. 29. Pathological Conditions of the Vulva. 30. Pathological Conditions of the Vagina. 31. Fibromyomata of the Uterus. 32. Uterine Polypi. 33. Carcinoma of the Uterus. 34. Sarcoma of the Uterus. 35. Chorionepithelioma. 36. Endometriosis. 37. Haematometra-Pyometra-Physometra. 38. Tumours of the Ovary. 39. Tumours of the Fallopian Tube. 40. Ectopic Pregnancy. 41. Neurasthenia and Neurosis in Relation to Pelvic Disorders. 42. Operations. Index. Plates.

In Gynaecology and Obstetrics 'Ten Teachers' publications have become, to medical practitioners and students, house-hold works of teaching.

In this latest edition the authors defend the principle of collective responsibilty but have attempted an increase in dogmatism. This is necessary in the presentation of a subject especially directed to medical students. Their success is revealed in this book, which is well printed and bound, at

a reasonable price.

Orthodoxy has not been sacrificed in the interests of dogma and the views presented must correspond with the teaching in most institutions. The various chapters are well constructed and the descriptions succinct, lucid and concise, adequately classified and illustrated.

The sections on the Sex Hormones and Physiology of Menstrual Function may be selected for mention for their rational concept of a difficult and controversial subject. Notable also, are the chapters on the Infections and the Fibromyomata.

With 53 new illustrations and almost every chapter rewritten or amended, the book is confidently recommended for the use of students

C.H.R.G.

ADVANCES IN UROLOGY

Modern Trends in Urology. Edited by E. W. Riches, M.C., M.S., F.R.C.S. (Pp. 476 ÷ xiii, with 215 figures. 84s. 6d.) London: Butterworth & Co. (Publishers Ltd.: Durban: Butterworth & Co. (Africa) Ltd., 1953.

Durban: Butterworth & Co. (Africa) Ltd., 1953.

Contents: Foreword. Introduction. 1. The Relationship of Urology to General Surgery. 2. The Training of the Urologist. 3. The Urologist's Amramentarium. 4. Advances in the Radiology of the Urinary Tract. 5. The Contribution of the Pathologist to Urology. 6. The Treatment of Urinary Infections (Excluding Tuberculosis). 7. Anaesthesia in Urological Surgery. 8. The Operative Approach to the Kidney. 9. Partial Nephrectomy. 10. Hydronephrosis and Hydrocalycosis. 11. Renal Denervation. 12. The Pathology of Renal Tumours. 13. Renal and Ureteric Neoplasms in the Adult. 14. Renal Neoplasms in Childhood. 15. Problems of Renal Transplantation. 16. The Treatment of Uraemia. 17. Transplantation of the Ureters: Indications and Methods. 18. Transplantation of the Ureters: Results and Effects. 19. Surgical Approach to the Pathology of Bladder Tumors. 20. Surgical Treatment of Maignant Growths of the Bladder. 21. The Radiological Treatment of Growths of the Bladder. 21. The Radiological Treatment of Maignant Growths of the Bladder. 22. Indications for Treatment in Prostatic Obstruction. 23. Complications of Prostatic Obstruction. 24. Harris Prostatectomy. 25. Retropubic Prostatectomy. 26. Wilson Hey Prostatectomy: The Punch Operation. 29. Transurethral Prostatectomy: The Punch Operation. 29. Transurethral Prostatectomy: The Punch Operation. 29. Transurethral Prostatectomy: Endoscopic Resection. 30. The Malignant Prostate. 31. Reconstruction of the Male Urethra in Strictures. 32. Genito-Urinary Tuberculosis. 33. Actiology and Prevention of Urinary Tract. 35. The Treatment of Ureteric Calculi. 34. The Effects of Carcinogenic Agents on the Urinary Tract. 35. The Treatment of Ureteric Calculi. 36. The Care of the Urinary Tract. in Parapagia. 37. Injuries of the Urinary Tract in Peace and War. 38. The Urological Aspects of Gynaecology. Index.

In this book the editor Mr. E. W. Riches has, with the help of many of the leading authorities in Urology to-day, shown us not only the present practices and boundaries of Urology, but also the road along which many of the future advances may take place.

The contributions are almost invariably well up-to-date and in the majority of articles are given with sufficient perspective to obviate a one-sided view of any problem. However, one must realize that to evaluate correctly many recent advances in clinical medicine or surgery, time (and sometimes the considerable passage of time) is required. There are misprints here and there which do not mar a book otherwise excellently produced and illustrated. On page 54 Hexamine as recommended in 20 gr. doses t.d.s. will upset many patients. One feels that partial nephrectomy has been overemphasized as a treatment for renal calculi in Chapter 9. Randall's papillary theory almost certainly only accounts for a minority of cases of renal calculi. In the chapter on hydronephrosis and hydrocalycosis, the surprising statement is made that the belvis and calyces do not readily dilate on account of obstruction in the lower reaches. This requires further explanation. One also feels that insufficient emphasis has been put on the neuro-muscular defect in congenital pelvic hydronephrosis as the underlying cause of the condition. In carcinoma of the bladder the value of the Leadbetter technique of total cystectomy, in which the lymph glands draining the bladder are removed at the same time as the primary growth, remains to be seen. The treatment of carcinoma of the prostate by the retro-pubic route in preference to the perineal route has the disadvantage that a frozen section of a suspicious nodule cannot be examined immediately before proceeding with the operation. However, these criticisms are

relatively minor and the editor is to be congratulated on a remarkable achievement,

This book can be strongly recommended to every urologist or general surgeon interested in Urology. S.S.

BIOCHEMICAL WORK ON THE STEROIDS

Ciba Foundation Colloquia on Endocrinology. Volume VII. Synthesis and Metabolism of Adrenocortical Steroids. Edited by G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., Margaret P. Cameron, M.A., A.B.L.S., and W. Klyne, M.A., Ph.D. (Pp. 297 with figures. 30s.) London: J. and A. Churchill Limited, 1953.

Contents: Part I. Synthesis of Adrenocortical and Related Steroids. I Companion Substances in Cholesterol of Various Sources. Discussion. 2. The Chemistry of Lanosterol. Discussion. 3. The Ergoscerol Route to Adrenal Cortical Hormones. Discussion. 4. Investigations on the Synthesis of 11-Ketosteroids. Discussion. 5. Partial Synthesis of \$\int_{0}^{p}\$ (11)-anhydrocorticosterone Acetate. Discussion. 6. Cortisone and II-epi-17-Hydroxycorticosterone Diacetate from Sarmentogenin. Discussion. 7. Synthesis of 11-Oxygenated Steroids from Steroidal Sapogenins. Discussion. 8. III-Oxygenated Steroids from Ergosteryl-D Acetate 22:23-Dibromide. Discussion. 9. Introduction of the 11-Keto Function in the Steroids. Discussion. 10. The Characterization of Trisubstituted Steroidal Ofefines by Infra-Red Spectroscopy. Discussion. 11. Some Aspects of the Sterochemistry of C-20. Discussion. 12. The Chemical Action of X-Rays on some Steroids in Aqueous Systems. Discussion. Part II. Metabolism of Adrenocortical Steroids. 13. Biogenesis of Adrenal Cortical Hormones. Discussion. 14. Studies of the Enzymes Involved in the Synthesis and Degradation of the Hormones of the Adrenal Cortical Discussion. 15. The in vitro Synthesis of Adrenal Cortical Steroids. Discussion. 16. Species Differences and Other Factors Influencing Adrenocortical Secretion. Discussion. 17. In vitro Metabolism of Adrenosterone. 18. Current Status of Corticosteroid Metabolism in Man. Discussion. 19. Estimation of Individual Adrenocortical Hormones in Human Peripheral Blood. Discussion. 20. Corticosteroid Metabolism in Isolated Perfused Rat Livers. Discussion.

In the foreword to this volume Professor Marrian points out that the announcement from the Mayo Clinic in 1949 of the dramatic effects of the administration of cortisone on the symptoms of rheumatoid arthritis ranks as one of the greatest in modern medical research because of the great stimulus it provided for chemical and biochemical work on the steroids. As a result steroid chemistry has in the course of a few years grown to become one of the major branches of organic chemistry. There have also been important developments in the newer steroid biochemistry which deals with the biosynthesis, metabolism and mode of action of steroid hormones. Part I of this volume deals with the production of adrenocortical hormones from certain animal and plant steroids. Part II deals with the biochemistry of the synthesis of steroids by the adrenal cortex, the enzymes involved and the factors influencing adrenocortical secretion. Of special importance to both physiologists and clinicians is the paper describing a method for the estimation of corticosteroids in human blood. The contributors to this colloquium are internationally famous: Fieser, Marrian, Pincus, Shoppee, Reichstein, Robinson-to mention only a few. The informa-tion contained in most of the articles and the points raised in the subsequent discussions will be of great interest to the experts in the field of steroid chemistry and biochemistry. Clinicians and others not familiar with the nomenclature and methods of organic chemistry will find Part I very hard going. The metabolic aspects of the subject described in Part II will be of more immediate interest and can be read with profit.

Although most of the subject-matter of this book is not immediately related to clinical problems there can be no doubt that the fundamental work reported in it will lead to results of great value to medicine within the next few years. HZ.

CORTISONE AND ACTH MANUAL

Cortisone and ACTH in Clinical Practice. By W. S. C. Copeman, O.B.E., M.D., F.R.C.P. (Pp. 255 + & 1 30s. 0d.) London: Butterworth & Co. Publishers Ltd. 1953

Contents: Foreword. Preface. 1. Rheumatic and Collagen Diseases. 2. Diseases of the Eye. 3. Endoctrine Disorders. 4. Respiratory and Allergic Diseases. 5. Skin Diseases of the Haemopoietic System. Index.

This manual is under the general editorship of W. S. C. Copeman, who, with Oswald Savage, also deals admirably with the rheumatic and collagen diseases. Diseases of the eye are discussed by Mary



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Savory and Arnold Sorsby, endocrine disorders and also respiratory and allergic diseases by F. Dudley Hart, skin diseases by G. B. Mitchell Heggs and diseases of the haemopoietic system by J. W. Stewart.

In each of the sections, these authors record their own experiences, and some are supported by illustrative case reports. Although due consideration is given to theoretical principles of the subject, the emphasis in this manual is on the clinical and practical aspects.

As these new therapeutic agents have already become firmly established in the medical practice not only of the specialist but also of the general practitioner, it is highly desirable, and indeed necessary, that a manual should be made available setting out in concise form the main indications for their use, the basic physiological principles and biological effects on which they depend for their therapeutic efficacy, the untoward side effects and hazards which may attend their use, and also a representative bibliography. This is such a book.

Dealing with a subject as new, as extensive and as controversial as that of cortisone and ACTH therapy, this book does not pretend to cover every aspect. It is hoped, however, that when a new edition falls due, which in time it surely must, its scope will be enlarged to include a consideration of conditions not referred to in this book for which these hormones have been shown to be of value.

This manual is highly recommended to all those who wish to become conversant with the rational application of this most important development in modern therapeutics.

SURFACE ANATOMY

Rawling's Landmarks and Surface Markings of the Human Body. Ninth Edition revised by J. O. Robinson, F.R.C.S. (Pp. 101 + viii, with 38 illustrations. 12s. 6d.) London: H. K. Lewis & Co.,

Contents: 1. The Head and Neck. 2. The Upper Limb. 3. The Thorax. 4. The Abdomen. 5. The Lower Limb. Appendix. Index.

Rawling's Surface Anatomy is nearly 50 years old, and has earned the title of minor classic. As the publishers fairly state, 9 editions are proof that the text is acceptable. Mr. Robinson has revised the present edition, but has not in fact altered any section of the book except that on ossification-centres. The presence of this section might be regarded as curious in a work on surface anatomy, but its inclusion is evidently traditional, and it is probably worth retaining.

Most parts of the book are admirable, but it is clear that the description given of the thoracic and upper abdominal organs is of cadaveric anatomy. There could be no objection to this if the fact were stated, and it were made plain that the levels described characterize a recumbent man in full expiration, This criticism not only affects the description of the diaphragm and the organs in contact with it, but also the position of the oblique fissure of the lung, which R. C. Brock has shown to lie at a lower level posteriorly than is stated in the usual account repeated here.

Mr. Robinson has corrected the error of calling The Frenchman Louis by the name Ludwig. Unfortunately the occurrence of the name on pages 39, 48, and in the diagram facing page 50 escaped him. This is a small matter which can easily be put right at the next reprinting.

ATLAS OF TUMOR PATHOLOGY

Atlas of Tumor Pathology. Section IV—Fascicle 14. Tumors of the Thyroid Gland. By Shields Warren, M.D., and William A. Meissner, M.D. (Pp. 97 with 82 illustrations. \$1.75). Washington, D.C.: Armed Forces Institute of Pathology. 1953.

Contents: 1. Introduction. (a) Tumor-like Lesions, i. Thyroglossal Duct Cyst, ii. Adenomatous Goiter. iii. Thyroiditia. 2. Benign Tumors. (a) Adenoma. ii. Follicular Adenoma. ii. Papillary Adenoma. (b) Teratoma. 3. Malignant Tumors. (a) Introduction. (b) Differentiated Carcinoma. i. Follicular Carcinoma. iii. Papillary Carcinoma. (c) Undifferentiated Carcinoma Carcinoma Simpley). Small Cell Carcinoma. ii. Giant Cell Carcinoma. (d) Miscellaneous Malignant Tumors. i. Epidermoid Carcinoma. ii. Hürthle Cell Carcinoma. iii. Fibrosarcoma. ii. University Tumor. iv. 'Lateral Aberrant Thyroid' Tumor. v. Lymphoma. vi. Secondary Tumor.

Atlas of Tumor Pathology. Section IV—Fascicle 15. Tumors of the Parathyroid Glands. By Benjamin Castleman, M.D. (Pp. 74, with 53 figures. \$0.65). Washington, D.C.: Armed Forces Institute of Pathology. 1953.

Contents: 1, Introduction. (a) Normal Parathyroid Gland. 2. Primary Hyperparathyroidism. (a) Clinical Features. (b) Adenoma. (c) Carcinoma. (d) Primary Hyperplasia and Hypertrophy. 3. Secondary Hyperplasia). 4. Nonfunctional Enlargement. (a) Oxyphil Adenoma. (b) Cysts. (c) Carcinoma.

These fasciculi, perforated and ready for insertion in loose-leaf covers, are first class productions. A reference to the contents (above) will show that the ground has been well covered; but it will give no idea of the concise, clear-cut manner in which the subjects have been handled nor could mere words describe the

excellence of the illustrations, particularly the photomicrographs.

Descriptions have followed a standard pattern, each condition being dealt with under the following headings: definitions, gross appearances, microscopic appearances, etiology, natural history of the disease, differential diagnosis and treatment. therefore, is easy to follow. The value of the descriptions is greatly

enhanced by the fact that generally-accepted explanations only are included. The clinician will really enjoy reading these books. The cost of the complete range of fascicul dealing with Tumour Pathology will probably put this out of reach of the ordinary practitioner, but when the lavish excellence of the productions is taken into consideration the price appears to be very reasonable. One suspects that it has been heavily subsidized. The Atlas should be in every reference library.

CORRESPONDENCE: BRIEWERUBRIEK

NASAL ALLERGY

To the Editor, In an article in the Journal of 5 December 1953 Dr. Petersen describes an operation for the relief of advanced and intractable cases of nasal allergy, under the title Nasal Allergy

A Surgical Contribution.

In every hospital and clinic and in consulting rooms the world over, patients are daily clamouring for relief from this, as yet, mysterious malady. In the far greater majority of patients the cause of the trouble remains obscure and the best we can do for them is to try to relieve or ameliorate their symptoms. Any new departure in treatment is consequently of the utmost importance to them, if it holds out the promise of giving better relief than can at present be offered by the accepted methods. It is from this point of view that I wish to draw attention to Dr. Petersen's article.

When the 'allergic degeneration' of the nasal mucous membrane

has progressed to the stage where it is 'a soggy, unhealthy, avascular, corrugated structure' Dr. Petersen proposes to direct his energies into what he describes as 'preventative nasal surgery'. If I have read the article correctly, what the operation envisages is a wedgeshaped resection of the 'grossly oedematous tissue' of the turginates,

with special emphasis on the inferior ones.

Leaving aside for the moment the ordinary corrective treatment of the deflected septum, what can such a procedure prevent? It will most assuredly not stay the changes in the affected mucous membranes. There is no known operation that will in any way affect the degenerative, hyperplastic proliferative process, and the symptoms will recur, not because insufficient tissue was removed in the first place, but on account of the continued and progressive changes that will occur in the devitalized tissue that remains after operation.

It is also very doubtful indeed, if, dealing with the grossly oedematous turbinal tissues (partucularly with that of the inferior turbinates) the surgeon will achieve 'his first and natural object, to restore reasonable ventilation'. It is an indisputable fact, known for a very long time, that the inspired current of air does not travel along the floor of the nose to the naso-pharynx. After leaving the vestibule it passes in an arched manner to the dome of the chamber, which it hugs on its way to the posterior choanae. Consequently it is only when the anterior end of the inferior turbinate is so enlarged that it plugs the vestibel like a cork that the current is impeded, and very little meddling with the enlarged anterior end is necessary to restore the airway.

In whatever way ventilation is established, there can be no return, 'automatic' or other, to normal physiological function. The mucous membrane described is beyond any hope of recovery and the mere establishment of a reasonable airway will not effect the miracle. We know that cilia will function under the most adverse conditions, but at this stage of allergic devitalization, their effort can be compared to the futility of trying to stir a municipal swimming bath with a battery of pins.

The article may also suggest to those not familiar with the surgical aspects of nasal allergy that the main incidence of the process is borne by the nasal mucous membranes entirely. are continuous, through the various ostia, with those of the sinuses, which are quite as liable to the allergic phenomena as the nasal At the stage we are considering, it would be very surprising not to find one or more sinuses involved. With the ostia blocked by the hypertrophied membrane, infection is inevitable, and it would be useless to concentrate on the nasal chambers to prevent infection when infected material is free to flow into it from an infected sinus.

I am also surprised to read that the old bogies of 'raw surfaces, crusting and adhesions' are not dead yet. Raw surfaces inside the nose show no less tendency to heal than tissues elsewhere in the body if they are given a favourable chance to do so. Granulations and crusting will form, here as elswehere where infected material is left to keep the inflammation alive. Nor are adhesions likely to occur in the nose if careful post-operative supervision is exercised. F. BEKKER, F.R.C.S.E.

86 St George's St. Cape Town 7 January 1954

'N INTERESSANTE KRAAMGEVAL

Aan die Redakteur, Hiermee die kliniese verslag van 'n interessante kraamgeval met enkele vrae, wat moontlik 'n helderder lig sal werp op die plattelandse praktisyn se moeilikhede betreffende verlos-kundige oordeel en behandeling.
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12 uur vantevore in die nag gebreek het.

Haar voorgeboortetydperk het normaal verloop, behalwe dat haar eggenoot 4 maande gelede oorlede is.

By ondersoek 'n gesonde sterk vrou van 27 jaar wat nieteen-staande genoemde kwaai emosionele knou, tog baie dapper is en begerig is om haar baba in die wêreld te bring. Haar pols is 80 per minuut, temperatuur 98° F, bloeddruk 130/80

en urien negatief. Foetus R.O.P. met kop gefikseerd. F.H. 140 per Bekken-mate normaal.

Rektale ondersoek lewer foetale kop wat mooi span teen die volopgeneemde cervix, nog sonder ontsluiting. Intussen druppel liquor amnii sterk en op dié stadium word begin met penicillin half-miljoen eenhede b.d. en toegedien tot in puerperium. Woensdagaand 25 November om 8 nm. begin die kraampyne,

24 uur na die breek van die vliese. Mist. chloraal toegedien asook vitamien K op die stadium.

Na ongeveer 3 uur van redelike goeie sametrekkings het rektale ondersoek 'n cervix gelewer, 2 vingers ontsluit en foetale skedel reeds op tuber ischii vlak. Pethidien 100 mg. intramuskulêr gegee en geboorte binne volgende paar uur verwag. Ongelukkig bedaar pyne na 'n uur en die vrou slaap tot die oggend. Sametrekkings nou 'n halfuur van mekaar en gehalte swak en kort van duur.

Hierdie toestand van sake duur voort tot Vrydag 12 nm. Intussen het sy egter 'n goeie nagrus gehad na mist, chloraal, en voedings ook nog gereeld. Op die stadium is 'n warm kliesma toegedien en sterker en gereelder kraampyne kom weer aan.

Vrydagaand om 8 nm, 'n vaginale ondersoek wat cervix lewer 3 vingers ontsluit met kop ingedaal. Geen vrugwatersak gevoel nie,

Die vrou begin nou 'n mate van nausea en vomitus te ontwikkel en hiervoor asook vir moontlike verbeterde sametrekkings word 40 cc. 50% glukose binne-aars toegedien. Saterdag 1 vm. verdwyn pyne egter weer en met 'n dosis chloraal rus sy weer goed en is haar moraal op die stadium met die nodige gerusstelling hoog.

Vier uur later tref ons haar effens moeg en moedeloos aan. Kraampyne 15 minute van mekaar en nog steeds van dieselfde swak gehalte. Haar pols en temperatuur bly normaal en omdat sy begin afdruk sonder resultaat word 'n tweede vaginale ondersoek nou gedoen. Cervix byna vol ontsluit, met oorblywende deel as 'n dun stywe band rondom kop. 'n Groot caput maak fontanelle onduidelik en verste skedelpunt reeds naby perineum.

Vanaf 7 vm. toon vrou se pols 'n styging en foetale hart ook versnel. Om die rede word die hele verloop in oënskou geneem om te besluit watter rigting nou gevolg moet word: 'n Primigravida de dur in kraam met baie duidelike vertraagde eerste stadium en beide moeder en kind op 'n moontlike gevaargrens, in soverre dit verloskunde betref ver van volle hospitaalfasiliteite. blaas en rectum leeg is nou aan die volgende moontlike behandelings

Die enigste aktiewe behandeling naamlik 'n tangverlossing se voorwaardes is onvoldoende. Pethidien kan weer gegee word, maar soos reeds genoem het dit voorgekom asof dit in haar geval eerder die inertia-toestand vererger het. Morfien se werking van aanvanklike rus gevolg deur kragtiger sametrekkings, is te betwyfel so laat in die eerste stadium van 'n 8 maande swangerskap.

Deeglik bewus van pitocin se gevare, is daar tog besluit om dit in te gee in klein dosisse en wel om die volgende redes: die uterus inertia nie weens uitputting nie, dit moes slegs verbeterde same-trekkings gee. Die kop is feitlik ook op perineum en daar is geen disproporsie nie. Net na 7 vm. 50% glukose 40 cc. binne-aars. Hierna '*Pitocin*'

mg. en sterker sametrekkings na 'n kwartier. daarna nog 1 m. dosisse tot 'n totaal van 3 mg. Nou is pyne vir die eerste keer van goeie gehalte.

Om 9 vm. begin tweede stadium. Weens swak vordering, nieteenstaande goeie afdruk-pyne, word suurstof aan moeder toegedien en foetale hart bly goed. Na 2½ uur in hierdie stadium 'n normale baba van 7 pond 4 onse in kruinligging gebore met perineum intakt. Derde stadium duur 2 uur met geringe bloedverlies, maar weens beginnende ballonagtige voorkoms van uterus is manuele verwy dering van placenta onder ether-narkose gedoen. Taamlike bloed-verlies en akute skokbeeld ontstaan wat dadelik egter effektief met 1000 cc. 10% dextrose in soutoplossing behandel is. Op derde dag nieteenstaande die onderhoudende penicillin en

bygevoegde sulfadiazienes en normale lochia het moeder 'n verhoogde temperatuur met onderbuik-teerheid ontwikkel. behulp van chloromycien klaar toestand egter dadelik op.

(a) Wat behoort die regte behandeling en benadering te wees deur die plattelandse algemene praktisyn van hierdie 'Kritieke' stadium wanneer swak sametrekkings die eerste stadium baie verleng en cervix nie ten volle ontsluit nie, en beide moeder en kind op gevaargrens bring?

(b) Hoe verklaar u die werking van pethidien in hierdie geval en op welke stadium van kraam moes dit toegedien gewees het. Watter gevare het die bepaalde toediening van pitocin in hierdie geval ingehou?

H. P. Botha, M.B., Ch.B. (Pretoria).

Posbus 2. Koffiefontein, O.V.S. 26 Desember 1953.

HANDLING THE BRONCHOSCOPE

To the Editor. The assumption of Drs. Adler and Fuller that the advent of the thoracic surgeons is the reason for the reduction in the mortality of bronchoscopy for removal of inhaled foreign bodies, smacks of an arrogance which is unusual in a mature medical mentality. Most of us become conditioned by experience to a more humble self-assessment.

It is indeed odd that finesse and delicacy in handling a bronchoscope should have evaded the ear, nose and throat surgeons for all these years, but that the thoracic surgeons should have been so rapidly and fully endowed with these qualities.

Had Drs. Adler and Fuller enquired a little further afield they would have learnt that even in those centres where this work has remained in the hands of the ear, nose and throat surgeons, the decline in the mortality has been equally dramatic. In the 11 cases I have dealt with over the past 21 years the mortality has been nil.

The reasons for the fall in the death rate are 3; (a) wider knowledge of the clinical picture by the general practitioner and consequently earlier transfer to hospital, (b) antibiotics, and (c) vastly safer anaesthesia.

Lance Knox, F.R.C.S. (England).

521. Colonial Mutual Bldg... West St...

> Durban. 24 December 1953.



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¹ Britton C. J. C. (1950): Practitioner, 164, 458

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1. All copy shoud be typewritten (double or preferably triple spaced) with wide margins.

Tables, references, graphs, illustrations and legends for illustrations should be clearly identified and prepared on separate sheets.

 All photographs should be glossy prints unmounted, untrimmed and unmarked. Authors' suggestions for trimming, etc., are most suitably indicated on a duplicate print or diagram.

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White, J. and Brown, A. B. (1946): Arch. Clin. Med., 123, 167. Books should be cited as follows:—

Smith, J. (1946): An Introduction to Medicine, 2nd ed., p. 174.
Cape Town: John Black, Ltd.

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Natal Provincial Administration

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Visiting Oro Facio Maxillary Surgeon.

Honoraria at the rate of £750 per annum will be payable. Applications should be addressed to the Director of Provincial Medical and Health Services, P.O. Box 20, Pietermaritzburg, to reach him not later than 27 January 1954.

(AD7951)

Township of Colenso

VACANCY: PART-TIME MEDICAL OFFICER OF HEALTH

Applications are hereby invited from qualified medical practitioners for the position of part-time Medical Officer of Health to the Colenso Town Board at a fixed salary of £60 per annum, plus £30 per annum travelling allowance.

The appointment will be in terms of the standard agreement of the Department of Health, a copy of which may be obtained on request, and will be subject to the approval of the Minister of

Applicants should furnish details of their qualifications, experience, age and marital state in their applications, which must reach the undersigned in sealed envelopes endorsed 'Vacancy—Medical Officer of Health' not later than Monday, 25 January 1954.

W. A. Nixon Town Clerk.

Town Offices Colenso

24 December 1953

(862)

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VACANCY FOR MEDICAL OFFICER

Applications are invited from registered medical practitioners for the post of Railway Medical Officer, Bulawayo, from I April 1954 or earlier, if possible.

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(B108112)

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Natal Provincial Administration

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- (b) Anaesthetic Department
- (c) Casualty Department

Grey's Hospital, Pietermaritzburg:

Out-patient Department

Edendale Non-European Hospital:

- (a) Department of Medicine
- (b) Anaesthetic Department
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Appointment is on twelve months' contract and the salary scale attached to the posts is—£720— 840×60 —1,020 per annum, less £180 per annum deduction in respect of board and lodging.

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Applications, giving full details of experience and qualifications, should be addressed to the Director of Provincial Medical and Health Services, P.O. Box 20, Pietermaritzburg.

(AD7961)

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de sertifikate in te die	n, asook om hulle te onderwerp	aan 'n	

geneeskundige ondersoek by die betrokke hospitaal.

Aansoekvorms is verkrygbaar van enige Transvaalse Publieke
Hospitaal of die Provinsiale Sekretaris, Afdeling Hospitaaldienste,
Posbus 2060. Pretoria.

Benewens jaarlikse salaris en lewenskostetoelae ontvang voltydse werknemers spoorwegkonsessie en word verlof toegestaan ooreenkomstig die hospitaalverlofregulasies.

Die sluitingsdatum van aansoeke vir die poste is 25 Januarie 1954.

Hospitaal Baragwanath Hospitaalbestuur en die Universi- teit van die Wit- watersrand	Pos Narkose Registrateur	Emolumente £620, 780, 820, £860	Aanmerkings Geregistreerde mediese praktisyn
Baragwanath Hospitaalbestuur en die Universi- teit van die Wit- watersrand	Mediese Registrateur	£620, 780, 820, £860	Geregistreerde mediese praktisyn
Johannesburg Hospitaalbestuur en die Universi- teit van die Wit- watersrand	Chirurgiese Registrateur	£620, 780, 820, £860	Geregistreerde mediese praktisyn
Johannesburg Hospitaalbestuur en die Universi- teit van die Wit- watersrand	Deeltydse Senior Genees- heer	£684	Geregistreerde mediese praktisyn, 3 sessies per week 43975

Bethlehem-Hospitaal

VAKATURE: DEELTYDSE GENEESHERE EN TANDARTSE

Applikasies word ingewag op vorm Z83, wat by Magistraatskantore verkrybaar is, vir die betrekkings van Deeltydse Geneeshere en Tandartse by die Bethlehemse Hospitaal vir die tydperk 1 April 1954 tot 31 Maart 1955.

Applikante moet by die S.A. Genees- en Tandheelkundige Raad geregistreer en onder 60 jaar wees.

Die voorwaardes van aanstelling is soos bepaal deur die O.V.S. Provinsiale Administrasie en die S.A. Genees- en Tandheelkundige Raad.

Aanstellings is onderhewig aan die O.V.S. Hospitaal Ordonnansie en Regulasies.

Die enigste of enige applikasie nie noodwendig aangeneem te word nie.

Applikasies gemerk 'Deeltydse Staf' moet ondergetekende nie later as 26 Januarie 1954 bereik nie.

P. G. Joubert, Sekretaris, Provinsiale Hospitaal, Bethlehem.

(A689014)

Provincial Administration of the Cape of Good Hope

HOSPITALS DEPARTMENT HOSPITAL BOARD SERVICES: VACANCY

1. Applications are invited for the following vacant post: Institution Post Emoluments Closing Applications must Date he addressed to £720x40-Medical 26.2.54 Frere The Medical Hospital Practitioner, 960 p.a. Superintendent, East Grade B. Frere Hospital,

 The conditions of service are prescribed in terms of Hospital Board Service Ordinance No. 19 of 1941, as amended, and the regulations framed thereunder.

regulations framed thereunder.

3. In addition to the scale of salary indicated a cost of living allowance at rates prescribed from time to time by the Administrator is payable to whole-time officials and employees.

 The successful candidate, if not already in the Hospital Board Service, will be required to submit satisfactory birth and health certificates.

5. Application must be made on the prescribed form (Staff 23) which is obtainable from the Director of Hospital Services, P.O. Box 2060, Cape Town, or from the Medical Superintendent of any Provincial Hospital or Secretary of any School Board in the Cape Province.

 Candidates must state the earliest date on which they can assume duty.

(A562890)

11

Provinsiale Administrasie van die Kaap die Goeie Hoop

HOSPITAALDEPARTEMENT HOSPITAALRAADSDIENS: VAKATURE

- Aansoeke word ingewag om die volgende vakante pos: Inrigting Pos Emolumente Sluitings-Aansoeke moet gerig word aan Die Mediese datum Frere-Geneesheer, £720x40-26.2.54 Hospitaal, Graad B. 960 p.j. Superintendent. Oos-Londen Frere-Hospitaal, Oos-Londen.
- Die diensvoorwaardes word voorgeskryf ingevolge die Ordonnansie op Hospitaalraadsdiens no. 19 van 1941, soos gewysig, en die regulasies wat daarkragtens opgestel is.
- Benewens die salarisskaal soos aangedui is 'n lewenskostetoelae betaalbaar aan voltydse beamptes en werknemers teen bedrae wat van tyd tot tyd deur die Administrateur vasgestel word.
- Die geslaagde kandidaat, indien nie reeds in die Hospitaalraadsdiens nie, moet bevredigende geboorte- en gesondheidsertifikate indien.
- 5. Aansoek moet gedoen word op die voorgeskrewe vorm (Staf 23) wat verkrygbaar is by die Direkteur van Hospitaaldienste, Posbus 2060, Kaapstad, of by die Mediese Superintendent van enige provinsiale hospitaal of by die Sekretaris van enige Skoolraad in die Kaapprovinsie.
- Kandidate moet die vroegste datum meld waarop hulle diens kan aanvaar. (A562890)

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